

Site Characterization Report for Sites 100 and 102

Outlying Landing Field Bronson Pensacola, Florida



Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888
Contract Task Order 0086

February 2000

SITE CHARACTERIZATION REPORT FOR SITES 100 AND 102

OUTLYING LANDING FIELD BRONSON PENSACOLA, FLORIDA

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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CONTRACT NUMBER N62467-94-D-0888 CONTRACT TASK ORDER 0086

FEBRUARY 2000

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ACRONYMS AND ABBREVIATIONS

bls below land surface

CQAP Comprehensive Quality Assurance Plan

DPT direct push technology

FAC Florida Administrative Code

FDEP Florida Department of Environmental Protection

FID flame ionization detector

GCTLs Groundwater Cleanup Target Levels

GPS Global Positioning System

ID inside diameter

ug/L micrograms per liter
NAD North American Datum

NAS Naval Air Station

NAVD North American Vertical Datum

Navy U.S. Navy

NEESA Naval Energy and Environmental Support Activity

OD outside diameter

OLF Outlying Landing Field
OVA organic vapor analyzer
PCB polychlorinated biphenyl

PVC polyvinyl chloride

SARA Superfund Amendments Reauthorization Act of 1986

SCR Site Characterization Report SCTLs Soil Cleanup Target Levels

SOUTHNAV-

FACENGCOM Southern Division, Naval Facilities Engineering Command

SPLP synthetic precipitation leaching procedure

SVOC semivolatile organic compound

TtNUS Tetra Tech NUS, Inc.

USEPA U.S. Environmental Protection Agency

VOC volatile organic compound

EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has completed a Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson. Soil and groundwater quality data collected during the SCR investigation were evaluated and compared to the groundwater and soil cleanup level requirements established in Chapter 62-777, Florida Administrative Code (F.A.C.). The SCR was submitted to the Florida Department of Environmental Protection (FDEP) for approval.

TtNUS performed the following actions during the SA:

- Reviewed the Preliminary Assessment Report and Phase I Environmental Report
 prepared for the facility to determine appropriate boring locations and monitoring well
 placements, and to identify the nearby surface hydrology and drainage;
- Conducted a site survey to identify utilities and to construct a site plan;
- Performed six direct push soil borings and collected soil samples for field screening of total petroleum hydrocarbons using an organic vapor analyzer;
- Installed six shallow permanent monitoring wells at depths ranging from approximately
 to 12 feet below land surface (bls); and installed two temporary monitoring wells to approximately
 feet bls.
- Collected groundwater samples from the monitoring wells for laboratory analysis of by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW- 846 8270C for semivolatile organic compounds SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenys (PCBs).
- Collected nine surface soil samples and two subsurface soil samples for laboratory analysis for VOCs, for inorganic analysis (metals and cyanide), and for pesticides and PCBs.
- Surveyed monitoring well top of casing elevations and collected depth to groundwater measurements to evaluate the groundwater flow direction.
- Reviewed the validity of sample data and provided evaluation and interpretation in support of conclusions and recommendations.

Conclusions

A shallow water table is present beneath Site 100 and Site 102, with groundwater encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from the wetland area located adjacent to the Site.

No organic vapor concentrations were detected in the soil samples collected from the Sites. Surface soil samples analyzed from Sites 100 and 102, and the background sample location, identified VOCs, SVOCs, and metal parameters at concentrations below their FDEP Soil Cleanup Target Levels (SCTLs). Subsurface soil samples collected from the background sample location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. No visual evidence of stained soils or chemical odors were detected during soil sampling activities.

Groundwater samples analyzed for Sites 100 and 102 and from the background sample location, reported all tested parameters below their laboratory method detection limits and below their respective FDEP Groundwater Cleanup Target Levels (GCTLs). Groundwater samples analyzed for Site 102 detected aluminum and iron at concentrations above their FDEP Groundwater Cleanup Target Levels. However, the inorganic sample analysis may not be a representative sample of the aquifer and may reflect turbidity of the water sample.

Recommendations

Based on the findings of the SCR investigation, A No Further Action is recommended for Site 100. At Site 102 additional groundwater sampling is proposed to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed and sampled. The new wells should be designed with filter packs to minimize turbidity in the groundwater samples. The new wells should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only.

Surface soil samples and subsurface soil samples (if depth to groundwater permit) should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to evaluate the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to the Department of Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) is submitting this Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson (the facility) located west of Pensacola, Florida (Figure 1). The SCR presents the results of a preliminary site characterization investigation prepared on behalf of the Navy at Naval Air Station (NAS) Pensacola under contract No. N62467-94-D-0888.

1.1 PURPOSE OF REPORT

The purpose of the SCR is to document field investigation activities and to report the findings from soil and groundwater testing conducted at Sites 100 and 102 during September and October 1999 at OLF Bronson. The results of the investigation were evaluated to determine if additional soil and groundwater testing should be conducted at the Sites.

1.2 PHYSICAL DESCRIPTIONS OF SITES

1.2.1 Site Description

1.2.1.1 Site 100 – Former Fire-Figher Training Area

Site 100 is a former fire-fighter training area located approximately 600 feet east of the taxiway, as shown on Figure 2. The OLF Bronson Fire Department conducted practice burns at the training area during the period that OLF Bronson was active (1942–1958). Typical fire-fighting drills consisted of filling a shallow pit with water then pouring flammable material on top of the water and igniting it. Typically, material burned during the training exercises consisted of readily available flammable products such as waste aviation gasoline. Other flammable liquids consisting of kerosene, chlorinated solvents, diesel fuel, hydraulic fluid, and automobile gas may have been burned (Law Engineering and Environmental Services, Inc., 1997).

1.2.1.2 Site 102 - Former Machine Gun Butt

Site 102 is a former machine gun butt located approximately 800 feet east of the taxiway and 400 feet southeast of Site 100, as shown on Figure 2. The machine gun butt measures approximately 100 feet by 40 feet by 30 feet high. The mound was used by aircraft mechanics to calibrate 30- and

50-caliber aircraft machine guns. Bullets from aircraft guns were aimed at the machine gun butt to test and align aircraft gun sites. Remnants of bullets were discovered embedded in the machine gun butt (Law Engineering and Environmental Services, Inc., 1997).

1.2.2 Previous Investigations

1.2.2.1 Preliminary Assessment Report

OLF Bronson was listed on the Federal Facilities Hazardous Waste Compliance Docket. In accordance with the Superfund Amendments and Reauthorization Act (SARA) Part 120, Naval Facilities Engineering Command tasked the Naval Energy and Environmental Support Activity (NEESA) to conduct a preliminary assessment on OLF Bronson. The preliminary assessment was conducted to evaluate if a potential threat to human health or the environment exists as a result of past or present operations conducted at the facility. The preliminary assessment included (1) the investigation of available records at NEESA and the Naval Facilities Engineering Command, (2) performance of a facility site inspection to complete documentation of past and present operations and disposal practices, and (3) interviewing employees at the facility with the assistance of NAS Pensacola representatives. Results of the investigation identified the fire fighting and machine gun butt training areas as areas of potential environmental concern with further site investigation recommended (Law Engineering and Environmental Services, Inc., 1997).

1.2.2.2 Phase I Environmental Site Assessment, 1997

In October 1997, Law Engineering and Environmental Services, under contract to the School District of Escambia County Florida Facilities Planning Department, initiated a Phase I Environmental Site Assessment at OLF Bronson. The objective of the assessment was to characterize the facility and adjacent properties with respect to actual and potential recognized environmental conditions. The assessment included review of the facilities location, present and past land uses, topography, soils, geology and hydrogeology, historical setting and document review, interviews, and site reconnaissance for environmental concerns.

Findings from the Phase I Environmental Site Assessment identified the former fire-fighter training area, Site 100, and the former machine gun butt, Site 102, as areas of environmental concern. The assessment results reported surface staining and petroleum-like odors at Site 100 and the potential for heavy metal contamination at Site 102. Heavy metal contamination was identified as a potential concern by association of metal particulates typically associated with firing ranges. The assessment recommended the collection of soil and groundwater samples at each of the Sites (Law Engineering and Environmental Services, Inc., 1997).

1.3 REPORT ORGANIZATION

The Site Characterization Report is organized into eight chapters (Chapters 1.0 to 8.0). Chapter 1.0 presents the purpose of the SCR and includes, site descriptions, previous investigations at OLF Bronson, and the report organization. Chapter 2.0 contains information on the site background. Chapter 3.0 presents the physiographical and hydrological conditions. Chapter 4.0 identifies the investigative methodologies and equipment used during the investigation. Chapter 5.0 addresses the results of the analytical data. Chapter 6.0 contains the summary and conclusions based on the results of the investigation. Chapter 7.0 presents the professional review certification. Chapter 8 identifies references used in preparing the document. Supporting data are provided in the Appendices.

2.0 SITE BACKGROUND

Sites 100 and 102 at OLF Bronson (Figure 2) are located in Escambia County, in Florida's northwest coastal area, approximately 5 miles west of the Pensacola City limits. The 950-acre installation was constructed in the early 1940s. Prior to construction, the Sites were undeveloped and sparsely vegetated. Areas to the south, east, and north of the facility are undeveloped with the exception of some residential properties along U.S. Highway 98 and Perdido Bay located approximately 0.5 miles to the north (Law Engineering and Environmental Services, Inc., 1997).

The original name of the airfield, Tarklin Field, was changed to OLF Bronson during the installation construction activities. The base was used as training base for naval aviators during World War II and the Korean War. The western portion of the facility was used to maintain sea planes and train sea plane pilots. OLF Bronson was closed as an active airfield in 1950, but the runways were still used for touch-and-go landing for helicopter training. After 1950, base dismantling activities were conducted and by 1968, all buildings located at OLF Bronson were raised (Law Engineering and Environmental Services, Inc., 1997). Today, several unpaved roads or airstrips are present leading to a circular paved area.

3.0 SITE CONDITIONS

3.1 PHYSIOGRHAPHY

The facility consists of generally flat terrain with surface drainage flowing by way of sheet flow towards a large wetland area located to the south and southeast. The wetlands area drains into Perdido Bay located approximately 0.5 miles to the west. The land surface at Sites 100 and 102 is primarily vegetated with grass and mature trees. The land surface soils are generally composed of a fine-grained sand. The Sites are bordered to the north by an asphalt paved landing mat, to the west by a runway, to the south by wetlands and undeveloped wooded properties, and to the east by wetlands located adjacent to residential properties (Figure 2).

3.2 HYDROGEOLOGY

3.2.1 Regional

Sites 100 and 102 are located in the Coastal Plain Province which is a major physiographic division of the United States primarily consisting of unconsolidated sands, silts and clays. The Sites lie within the topographic subdivision of the Coastal Lowlands which consists of nearly level plains lying less than 100 feet above sea level. Pleistocene terrace deposits and Citronelle Formation, undifferentiated, comprise the surface deposits in the region. At Perdido Bay, the Pleistocene deposits are approximately 400 in thickness and consist of fine to coarse-grained sand with lenses of clay and gravel. The deposits, are underlain by Miocene coarse clastics comprised of fossiliferous sands with lenses of gravel and clay. The Miocene coarse clastics have a thickness of approximately 500 feet at Perdido Bay (Marsh 1966).

Groundwater is the principal source for domestic, agricultural, and industrial use in Escambia County. The Sand and Gravel Aquifer is the primary aquifer in Escambia County and the majority of the wells in the county draw water from this aquifer. The Sand and Gravel Aquifer is generally consists of quartz sand and contains numerous lenses and layers of clay and gravel. This aquifer extends from the water table down to various depths ranging from approximately 200 to 1000 feet. (Law Engineering and Environmental Services, Inc., 1997).

3.2.2 Site Specific

Lithologic descriptions of soil samples collected from borings advanced during the SCR investigation, are used to evaluate the site-specific geology for Sites 100 and 102. Since the deepest borings were advanced to approximately 12 feet bis to facilitate monitoring well installations, discussion on sediment textures is limited to the upper 12 feet of sediments in the study area. The lithology of the sediments at Site 100 and 102 are composed of brown-to-tan and white fine-grained sands. Beneath Sites 100 and 102 the depth to the water table ranged from approximately 0.5 to 2 feet bis. Background borings, BRO-102-1S and BRO-102-2S, installed approximately 3,800 feet to the north of the study area, intersected the water table at approximately 6 feet bis. The land surface elevation ranges from approximately 14 feet above mean sea level (msl) at the Sites, to approximately 26 feet above msl at a distance of approximately 3,800 feet north of the study area. Boring logs are presented in Appendix A.

4.0 METHODOLOGIES AND EQUIPMENT

4.1 SOIL BORING ADVANCEMENT, SOIL SAMPLING AND ORGANIC VAPOR ANALYZER HEADSPACE ANALYSIS

4.1.1 Soil Sampling

TtNUS conducted a soil assessment during September and October 1999 at Sites 100 and 102, and from a background location situated approximately 3,800 feet north-northwest of the study area along Bronson Road. Four soil borings BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S were installed at Site 100 and two soil borings, 102-SS-01 and 102-SS-02 were installed at the background location. In addition to the soil borings, four surface soil samples 100-SS-01, 100-SS-02, 100-SS-03, and 100-SS-04 were collected at Site 100, three surface soil samples, 102-SS-03, 102-SS-04, and 102-SS-05 were collected at Site 102, and two surface soil samples, 102-SS-01 and 102-SS-02, were collected at the background boring locations. The soil boring locations for Sites 100 and 102 are provided on Figures 3 and 4, respectively. The locations of the background borings are shown on Figure 5. The soil boring logs are provided in Appendix A, and the soil field sampling forms are included in Appendix B.

Soil samples from vadose zone soils were collected from the monitoring well installation borings. Samples from these borings were collected for purposes of organic vapor screening and lithologic description. The soil samples which exhibited the highest vapor concentration were retained for laboratory analysis by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW- 846 8270C for semivolatile organic compounds (SVOCs), Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenys (PCBs). The soil borings were advanced using direct push technology (DPT) utilizing a truck mounted direct-push, hydraulic soil probe using a 4-foot long stainless steel split-spoon barrel sampler. The DPT soil sampling technology allowed for the collection of samples from a discrete depth interval with minimal disturbance to the sample. Soil samples were collected for vapor screening from approximately ground surface to the water table. The DPT borings ranged in depth from approximately 6 to 12 feet bls to facilitate the monitoring well installations. The soil samples for laboratory analysis were collected using a stainless steel split spoon sampler (DPT), stainless steel spatula, and T-Handle Encore sampler.

Subsurface soil grab samples at the background locations were collected from soils lying just above the water table (sample collected 4 to 5 feet bls at 102-SU-01) and from 5 to 6 feet bls at 102-SU-02) since no organic vapors were detected in vadose zone soils at Sites 100 and 102. Since groundwater was present within 2 feet of the ground surface at Sites 100 and 102, no soil samples were collected from the vadose zone. Surface soil grab samples were collected at Sites 100 and 102 from the ground surface to approximately 0.5 feet bls. At Site 100, four surface soil samples were collected within an area that had been disturbed during previous site operations (former fire fighting training pit). That area is now identified by visual observation growth patterns. At Site 102, three surface soil grab samples were collected from the surface to approximately 0.5 feet bls. These samples were collected from locations aligned with the firing range to the machine gun butt.

4.1.2 Soil Headspace Analysis

Subsurface soil samples were collected from 2-foot intervals and screened using an organic vapor analyzer (OVA) with a Flame lonizing Detector (FID). The method used to screen headspace samples included placing the soil sample in two 16 ounce jars; once half full, the jars were sealed with aluminum foil using a threaded metal ring and were allowed to equilibrate for approximately 5 minutes. The reading was obtained by piercing the foil with the FID probe. If organic vapors were detected, the same procedure was used on the second jar using a carbon filter to determine if methane was present. If present, the methane vapor concentration was subtracted from the unfiltered soil vapor measurement and an organic vapor concentration was reported for the sample. The sample with the highest reading was submitted to the laboratory for analysis. If no readings were detected, then the sample was collected from the vadose zone approximately 2 feet above the water table. The soil vapor concentration measurements are provided on the boring logs and on the soil field sampling logs included in Appendices A and B.

4.1.3 Sampling and Decontamination Procedures

Soil sampling protocols were performed in accordance with TtNUS Comprehensive Quality Assurance Plan (CQAP) No. 980038 (1999), approved by the FDEP on August 25, 1999. The TtNUS CQAP incorporates FDEPs' Quality Assurance Section's Standard Operating Procedures for Laboratory Operations and Sample Collection (DER-001/92), and USEPA Investigations Standard Operating Procedures Quality Assurance Manual (1996b). During the soil sampling, an equipment blank sample was inadvertently not collected. Proper equipment decontamination procedures were followed and the absence of significant (< SCTLs) levels of contaminants in any of the soil samples suggests little potential for equipment contamination. A trip blank sample

(sample TB090899-1), and a duplicate sample (sample 100-SS-DD) from soil sample 100-SS-02 was collected for laboratory analysis. All samples were iced immediately after collection and chilled to 4°C. Chain-of-Custody was maintained by Tetra Tech NUS until the samples were submitted to Ceimic Corporation, Rhode Island for analyses.

All equipment used in the collection of soil samples and downhole equipment used in the installation of the boreholes was decontaminated using the following procedures:

- Wash and scrub the equipment with a solution of Liquinox (or equivalent) and potable water.
- Rinse with potable water.
- Rinse with analyte-free water.
- Rinse twice with isopropanol.
- Rinse thoroughly with analyte-free water.
- Air dry (if possible).
- Wrap in oil-free aluminum foil (if appropriate).

4.2 WATER TABLE ELEVATION MEASUREMENTS

Depth to groundwater measurements were collected from monitoring wells BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S at Site 100 on September 10, 1999, and from monitoring wells BRO-102-3S and BRO-102-4S at Site 102 on September 9, 1999. Depth to groundwater measurements were collected from background monitoring wells BRO-102-1S and BRO-102-2S on October 27, 1999. Measurements were collected from the rim of the top of well casing using an electronic water level indicator. The water level measurements were collected to determine the depth to water in the surficial aquifer and to evaluate the groundwater flow direction. The depth to groundwater measurements are provided in Table 1.

4.3 MONITORING WELL CONSTRUCTION AND INSTALLATION

On September 9, 1999, monitoring wells were installed at Sites 100 and 102 using the DPT drilling method. At Site 100, four permanent monitoring wells, BRO-100-1S through BRO-100-4S, were installed. Due to intermittent flooding at Site 102, two temporary monitoring wells, BRO-102-3S and BRO-102-4S were installed. Each of the wells installed at Sites 100 and 102 were constructed of 1.25-inch inside diameter (ID) schedule 40 poly vinyl chloride (PVC) riser and 0.01-inch slot well screen with silt trap and well bottom cap. The wells were completed at approximately 6 feet bls and were screened from 1 foot to 6 feet bls to bracket the water table. The annulus between the well casing and borehole was packed with medium sand within 6-

inches of the ground surface. The remaining annular space was sealed with bentonite. Each well was completed with approximately 2.5 feet of riser sticking up above the ground surface with the top of the well secured with a well cap. A steel casing set within a 4-inch thick, 2 foot by 2 foot concrete pad secures the casing stickup. Due to flooding in the Site 102 area, the temporary wells were removed and the boreholes sealed with bentonite after groundwater samples were collected from the wells. The locations of the monitoring wells are shown on Figures 6 and 7.

On October 12, 1999, two monitoring wells, BRO-102-1S and BRO-102-2S, were installed to provide background sampling points to assess groundwater quality hydraulically upgradient to Sites 100 and 102. The locations of the monitoring wells are shown on Figure 8. Each of the background monitoring wells were installed using DPT drilling method and were completed at a depth of approximately 12 feet bls. Each well was constructed of 1-inch ID schedule 40 PVC riser with 10 feet of 0.01-inch slot prepacked well screen set within a 2.5-inch outside diameter (OD) screened casing filled with medium sand. Medium sand was placed between the borehole annulus and the well screen OD casing from the bottom of the boring to approximately 6 inches above the screen. Fine sand was placed on top of the medium sand to within 6-inches of the ground surface. A bentonite seal was installed from the top of the fine sand to the ground surface. Approximately 2.5 feet of PVC riser pipe extended above the ground surface. A 4-inch thick, 2 foot by 2 foot concrete pad and steel protective casing for the well casing stickup was installed to complete the well installation. Monitoring well construction details are included in Appendix C.

Each well was developed using a peristaltic pump. During well development, field measurements of pH, temperature, specific conductance, and turbidity were monitored from the purge water generated. The wells were developed up to a maximum of one hour or until the field measurements became stable and purge water clear. Well development records are included in the groundwater field forms provided in Appendix D

Upon completion of the well installations, the horizontal and vertical surveys were performed by a Florida registered surveyor and mapper to determine the locations and elevations of groundwater monitoring wells and environmental sample locations. The horizontal locations were referenced to the Florida State Plane Coordinate System, North Zone, North American Datum (NAD) of 1983, 1990 adjustment (NAD 83/90), by ties to existing published monuments in the vicinity. Elevations were referenced to Mean Sea Level, North American Vertical Datum, 1988 Adjustment (NAVD 88) by ties to existing survey benchmarks in the vicinity. Control points and site features were established at each site from exiting monuments and benchmarks using differentially corrected Global Positioning Systems (GPS) Surveys.

4.4 GROUNDWATER SAMPLING

Groundwater sampling of monitoring wells at Sites 100 and 102 was performed by TtNUS on September 9 and September 10, 1999. Background monitoring wells were sampled on October 27, 1999. Groundwater samples were collected for analysis by U.S. EPA Method SW-846 8260B for VOCs, Method SW-846 8270C for SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and PCBs. Groundwater samples were collected using teflon tubing and peristaltic pump.

Prior to sample collection, each well was purged of at least three well volumes. Temperature, pH, and conductivity readings were recorded at the time of sampling. Groundwater samples were iced immediately after collection and chilled to 4°C and shipped to Ceimic Corporation, for analysis. Chain of Custody was maintained by TtNUS until the samples were submitted to the laboratory for analysis. The groundwater sampling field forms are presented in Appendix D

Groundwater sampling activities were performed following procedures prescribed in TtNUS' CQAP with the exception; an organic trap bottles were not used during the collection of samples for extractable organics, pesticides, and PCBs. Quality control samples including a field blank (sample FB091099-01), equipment rinsate sample (sample ER091099-01), duplicate sample (sample 100-MW-DD-010 collected from monitoring well BRO-100-1S, matrix spike, and trip blank (samples TB091099-01) were collected and submitted to the laboratory for analysis.

5.0 SITE CHARACTERIZATION RESULTS

5.1 GROUNDWATER FLOW DIRECTION

Groundwater elevation measurements collected September 10 and October 27, 1999, from monitoring wells installed for the SCR investigation, indicates the general trend of the water table flow direction is southwest, discharging towards a wetlands area. This flow direction corresponds to the general slope of the site. The groundwater flow direction is depicted on Figure 9, and groundwater elevation measurements are provided in Table 1.

5.2 CHEMICAL COMPONENTS AND CONTAMINANTS

5.2.1 Soil Samples

The evaluation of soil quality for Sites 100 and 102 is based on the parameter concentrations from soil samples collected during the SCR investigation. The soil parameter concentrations were compared to their Soil Cleanup Target Levels (SCTLs) for Direct Exposure for Residential Area, as established in Chapter 62-777 of the Florida Administrative Code (FAC) to determine if further assessment actions are necessary to address potential soil contamination.

5.2.1.1 Site 100 - Former Fire-Fighter Training Pit

Soil laboratory analytical results identified VOCs, SVOCs and inorganics (metals) in each of the four surface soil samples. All detected soil parameters were reported at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.1.2 Site 102 - Former Machine Gun Butt

Soil laboratory analytical results detected VOCs, SVOCs, and inorganics (metals) in each of the three surface soil samples. All detected parameters were at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.1.3 Background Samples

Subsurface soil analysis detected VOCs, SVOCs, and inorganics (metals) in each of the background subsurface soil samples. The laboratory results indicate the concentrations of VOCs, SVOCs, and metals in the subsurface soils are less than the SCTLs for Direct Exposure for Residential Area. Analysis of surface soils identified VOCs, SVOCs, and inorganic (metals) in one of two samples collected at the background location; however, the concentrations of VOCs, SVOCs, and inorganics are less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.2 Groundwater Samples

Groundwater quality at Sites 100 and 102 is based on parameter concentrations from groundwater samples collected during the SCR investigation. The groundwater parameter concentrations were compared to their FDEP Groundwater Cleanup Target Levels (GCTLs), as established in Chapter 62-777 FAC to determine if further assessment actions are necessary to address potential groundwater contamination.

5.2.2.1 Site 100 - Former Fire-Fighter Training Pit

The groundwater laboratory analysis of groundwater samples collected from the monitoring wells at Site 100 reported all VOCs, SVOCs, and inorganics (PCBs, pesticides, metals, and cyanide) are below laboratory detection limits and below their FDEP GCTLs. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.2 Site 102 - Former Machine Gun Butt

Groundwater laboratory analysis collected from two temporary monitoring wells installed at the Site 102 reported all SVOCs, PCBs, and pesticides below laboratory detection limits and below their FDEP Groundwater Cleanup Target Levels. Acetone was the only VOC parameter detected in the groundwater. Acetone was detected at 6 micrograms per liter (ug/L) in the sample collected from temporary monitoring well BRO-102-3S. The acetone concentration is less than the FDEP Groundwater Cleanup Target Level of 700 ug/L for acetone. Metal analytes: aluminum; zinc; iron; and lead were detected in the groundwater sample from BRO-102-3S. The aluminum concentration of 1,230 ug/L and iron concentration of 1,860 ug/L exceeds the FDEP

Groundwater Cleanup Target Level of 200 ug/L for aluminum and 300 ug/L for iron. Aluminum (318 ug/L) and zinc (22.1 ug/L) were also detected in the groundwater sample collected from temporary monitoring well BRO-102-4S. The Aluminum concentration in BRO-102-4S exceeds the FDEP Groundwater Cleanup Target Level for aluminum. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.3 Background Samples

Groundwater laboratory analysis of groundwater samples collected from background monitoring wells BRO-102-1S and BRO-102-2S reported all VOCs, SVOCs, pesticides, and metals below laboratory detection limits and below FDEP Groundwater Cleanup Target Levels. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.4 Quality Assurance Samples

Acetone was detected at 8 ug/L in the field blank (sample FB091099-01) and at 10 ug/L in the trip blank (sample TB091099-01). Acetone is a common laboratory contaminant and is likely the source for the acetone detected in the groundwater sample from BRO-102-1S. Toluene was detected in the equipment rinsate (sample ER091099-01) at 2 ug/L but was below the laboratory method detection limits in all other groundwater samples.

6.0 SUMMARY AND CONCLUSIONS

6.1 SUMMARY

6.1.1 Site 100 - Former Fire-Fighter Training Pit

Four surface soil samples and four groundwater samples were collected at Site 100. Groundwater was encountered within 2 feet of the ground surface which prohibited the collection of subsurface soil samples for laboratory analysis. The groundwater and soil samples for Site 100 were analyzed for VOCs, SVOCs, and inorganics (pesticides, PCBs, metals and cyanide). The results of the soil analysis identified VOCs, SVOCs and inorganic parameters in the soil; however, all detected parameters were reported at concentrations less than their FDEP SCTLs for Direct Exposure Limits for Residential Area as established in Chapter 62-777, F.A.C. The FDEP SCTLs are risk-based cleanup target levels for chemicals of concern based on direct human contact. Groundwater samples analyzed at Site 100 identified no VOCs, SVOCs, or inorganics in the groundwater above the laboratory method detection limit or above the FDEP GCTLs.

6.1.2 Site 102 - Former Machine Gun Butt

Three surface soil samples and two groundwater samples were collected at Site 102. The samples were analyzed for VOCs, SVOCs, and inorganics. Groundwater encountered within 2 feet below ground surface, prohibited the collection of subsurface soil samples for laboratory analysis. Flooding at Site 102 also restricted access to the area for collecting samples during the sampling events. Surface soil samples collected at the Site 102 detected VOCs, SVOCs, and metal parameters in each of the surface soil samples; however, all detected parameters were at concentrations less than their FDEP SCTLs. Groundwater samples analyzed from two temporary monitoring wells detected no VOCs above FDEP GCTLs. Acetone was detected in one groundwater sample below the FDEP GCTL and is attributed to a laboratory artifact since the parameter was detected in both the field blank and trip blank quality assurance samples. The acetone concentration detected in the groundwater was less than the FDEP Groundwater Cleanup Target Level. Iron and aluminum were identified in the groundwater samples at approximately 6 times their respective FDEP GCTL.

6.1.3 Background Locations

Two surface soil samples and two subsurface soil samples were collected at a background monitoring well locations. Analysis of the background samples indicated VOCs, SVOCs, and inorganics were reported below the laboratory method detection limits and less than their FDEP SCTLs. The analysis of groundwater samples collected from the background monitoring wells inicated VOCs, SVOCs, and inorganics were below laboratory method detection limits and less than their FDEP GCTL.

6.2 CONCLUSIONS

Findings from the SCR investigation identified a shallow water table present beneath Sites 100 and 102, with ground water encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from wetlands located adjacent to the Site. Water level measurements collected from site monitoring wells indicate the water table flow direction is generally toward the south-southwest across the study area. No visual evidence of stained soils or chemical odors were detected during soil and groundwater sampling activities.

Results from surface soil samples analyzed at Sites 100 and 102, and the background sample location for VOCs, SVOCs, and metal parameters were below their FDEP SCTLs. Subsurface soil samples collected at the background location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. The soil analytical results indicates the soil at Site 100 and 102 do not pose a human risk-base health concern from residential land use as identified in Chapter 62-777, FAC.

Results from groundwater samples analyzed at Site 100 and the background sample location for VOCs, SVOCs, and metal parameters were below laboratory method detection limits and below their respective FDEP GCTLs. Groundwater samples analyzed at Site 102 for VOCs and SVOCs were below their respective FDEP GCTLs. Aluminum and iron concentrations were detected in the groundwater at Site 102 at concentrations above their respective FDEP GCTLs. However, the inorganic sample analyses may not be a representative sample of the aquifer, since aluminum and iron concentrations may reflect the increased turbidity of the water samples associated with temporary monitoring wells installed by hand-auger methods.

6.3 RECOMMENDATIONS

Based on the findings of the SCR investigation, a No Further Action is recommended for Site 100. At Site 102, it is proposed that additional groundwater sampling be conducted to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed with a filter pack designed for the formation and installed into a larger diameter borehole. This should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only. Surface soil samples, and subsurface soil samples (if depth to groundwater levels permit), should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to characterize the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

7.0 PROFESSIONAL REVIEW CERTIFICATION

Site Charaterization Report
Outlying Landing Field Bronson
Naval Air Station, Pensacola, Florida

This Site Assessment Report was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

	
Terry Hansen, P.G.	
Florida License No. 234	
Date	

8.0 REFERENCES

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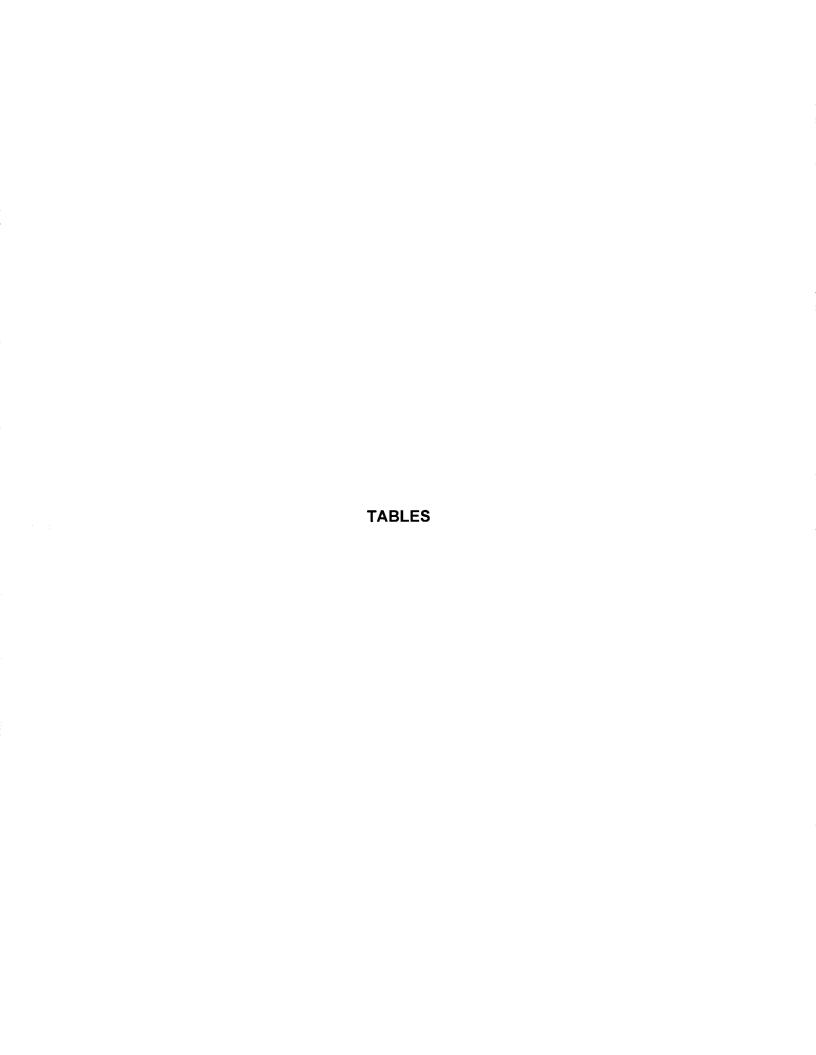


TABLE 1

GROUNDWATER ELEVATIONS OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA SITES 100 AND 102

Well No.	Total Depth of Well (ft)	Top of Casing Elevation, ft (MSL)	Date Measured	Depth to Free Product (BTOC)	Depth to Water, ft (BTOC)	Groundwater Elevation, ft (MSL)
BRO-100-1S	5	14.66	9/10/99	ND	1.46	13.20
BRO-100-2S	5	17.99	9/10/99	ND	0.81	17.18
BRO-100-3S	5	16.04	9/10/99	ND	0.80	15.24
BRO-100-4S	5	16.19	9/10/99	ND	0.75	15.44
BRO-102-1S	12	27.76	10/27/99	ND	6.30	21.46
BRO-102-2S	12	28.32	10/27/99	ND	6.61	21.71
BRO-102-3S	3	NS	9/9/99	ND	0.50	NA
BRO-102-4S	5	NS	9/9/99	ND	0.66	NA

Notes:

MSL - Mean Sea Level

BTOC - Below Top of Casing

ft - feet

ND - Not Detected

NS - Not Surveyed (Temporary Monitoring Wells)

NA - Not Available

Table 2 Summary of Compounds and Analytes Detected in Soils

Outlying Landing Field Bronson, Pensacola, Florida

		Sites 100 a	and 102			
Sample No.		100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-DE
Sample Location		100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-02
Collect Date		9/8/99	9/8/99	9/8/99	9/8/99	9/9/99
Sample Depth (bis)		0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.
	DE1 ¹ /DE2 ² /LE ³ (mg/kg)					
Volatile⁴ (mg/kg)						
Methylene Chloride	16/23/0.02	0.011	0.012	0.018	0.011	0.013
Acetone	780/5,500/2.8	0.13	0.11	0.52	0.11	0.079
2-Hexanone	5.1/34/1.4	0.017	***		***	
Semi-Volatile ⁵ (mg/kg)						
Di-n-Butylphthalate	7,300/140,000/47			0.048 ^J	0.039	
bis (2-Ethylhexyl) Phthalate	76/280/3,600	1.5 ^J	-	0.040 ^J	0.058	0.25 ^J
Benzoic Acid	150,000/ * /110	~~		0.061 ^J		
Pesticides ⁶ (ug/kg)						
None detected						
PCBs ⁶ (ug/kg)						
None detected						
Metals ⁷ (mg/kg)						
Aluminum	72,000/ * / ***	1,930	3,450	2,080	2,580	2,950
Iron	23,000/480,000/ ***	802	1,210	840	872	953
Lead	400/920/ ***	4.7	3.9	2.9	3.4	2.3
Manganese	1,600/22,000/ ***	2.1	3.4	2.0	2.3	2.5
Zinc	3.400/53.000/19	3.4	3.9	3.1	3.4	3.5

DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

² DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

³ LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

⁴ SW-846 8260B, ⁵ SW-846 8270C, ⁶ SW-846 8080, ⁷ SW-846 6010B

Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

^{*} Contaminant is not a health concern for this default exposure scenario.

^{**} Direct exposure value based on acute toxicity considerations.

^{***} Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

Table 2 (Continued) Summary of Conpounds and Analytes Detected in Soils

l	Outlying Landing Field Bronson, Pensacola, Florida							
		Sites 100 a	and 102					
Sample No.		102-SU-01	102-SU-02	TB090899-01	TB090999-01	TB101299-01		
Sample Location		BRO-102-1S	BRO-102-2S	ww.				
Collect Date		9/8/99	10/12/99	9/8/99	9/9/99	10/12/99		
Sample Depth		4 to 5 ft.	5 to 6 ft.	Davis.		**		
	DE1 ¹ /DE2 ² /LE ³ (mg/kg)							
Volatile⁴ (mg/kg)								
Methylene Chloride	16/23/0.02	0.011	0.009	0.002	0.002	~~		
Acetone	780/5,500/2.8	0.054	0.011	0.023	0.039			
2-Butanone		~~		0.006	0.015			
Semi-Volatile ⁵ (mg/kg)								
bis (2-Ethylhexyl) Phthalate	76/280/3,600	3.6		NA	NA	NA		
bis (2-Ethylhexyl) Phthalate	76/280/3,600	3,6		NA	NA	NA		
Pesticides ⁶ (ug/kg)								
None detected								
PCBs ⁷ (ug/kg)								
ne detected								
Metals ^a (mg/kg)								
Aluminum	72,000/ * / ***	2,710	533	NA	NA	NA		
Iron	23,000/480,000/ ***	1,490	109	NA	NA	NA		
Lead	400/920/ ***	1.3	0.6	NA	NA	NA		
Manganese	1,600/22,000/ ***	2.1	~~	NA	NA	NA		
Zinc	3,400/53,000/19	3.3		NA	NA	NA		
Chromium		3.2	••	NA	NA	NA		
Vanadium		5.1		NA	NA	NA		
Barium			1.4	NA	NA	NA		

DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

NA Not Analyzed

² DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

³ LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

⁴ SW-846 8260B, ⁵ SW-846 8270C, ⁶ SW-846 8081A, ⁷ SW-846 8082, ⁸ SW-846 6010B

Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

^{*} Contaminant is not a health concern for this default exposure scenario.

^{**} Direct exposure value based on acute toxicity considerations.

^{***} Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

Table 2 (Continued) Summary of Compounds and Analytes Detected in Soils

Outlying Landing Field Bronson, Pensacola, Florida Sites 100 and 102

		Oiles 100 i	UIIU 1VE			
Sample No.		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Sample Location		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Collect Date		9/8/99	9/8/99	9/9/99	9/9/99	9/9/99
Sample Depth (bls)		0 to 0.5 ft.				
	DE1 ¹ /DE2 ² /LE ³ (mg/kg)					
Volatile ⁴ (mg/kg)						
Methylene Chloride	16/23/0.02	0.012	0.013	0.009	0.009	0.009
Acetone	780/5,500/2.8	0.12	0.19	0.099	0.072	0.15
2-Hexanone	5.1/34/1.4		***			0.024
Semi-Volatile ⁵ (mg/kg)						
Di-n-Butylphthalate	7,300/140,000/47	0.077 ^J	0.043 ^J	0.083 ^J	0.038 ^J	0.047 ^J
Fluoranthene	2,900/48,000/1,200	0.048 ^J		***	un	
Pyrene	2,200/37,000/880	0.04		**		***
bis (2-Ethylhexyl) Phthalate	76/280/3,600	0.071 ^J		0.68	0.091	
Benzoic Acid	150,000/ * /110		0.12 ^J	0.086	4636	0.036 ^J
Pesticides ⁶ (ug/kg)						
None detected						
PCBs ⁶ (ug/kg)						
None detected						
Metals ⁷ (mg/kg)						
Aluminum	72,000/ * / ***	2,440	1,220	666	718	889
Iron	23,000/480,000/ ***	363	444	358	287	541
Lead	400/920/ ***	5.1	3.3	2.2	0.64	3.8
Manganese	1,600/22,000/ ***		2.4	1.7		
Zinc	3,400/53,000/19	2.8	2.8	2.6		2.2
Chromium	210/420/38	1				
Selenium	390/10,000/5	0.46	wite		No. or	**

DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

² DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

³ LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

⁴ SW-846 8260B, ⁵ SW-846 8270C, ⁶ SW-846 8080, ⁷ SW-846 6010B

Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

^{*} Contaminant is not a health concern for this default exposure scenario.

^{**} Direct exposure value based on acute toxicity considerations.

^{***} Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

Table 3
Summary of Compounds and Analytes Detected in Aqueous Samples

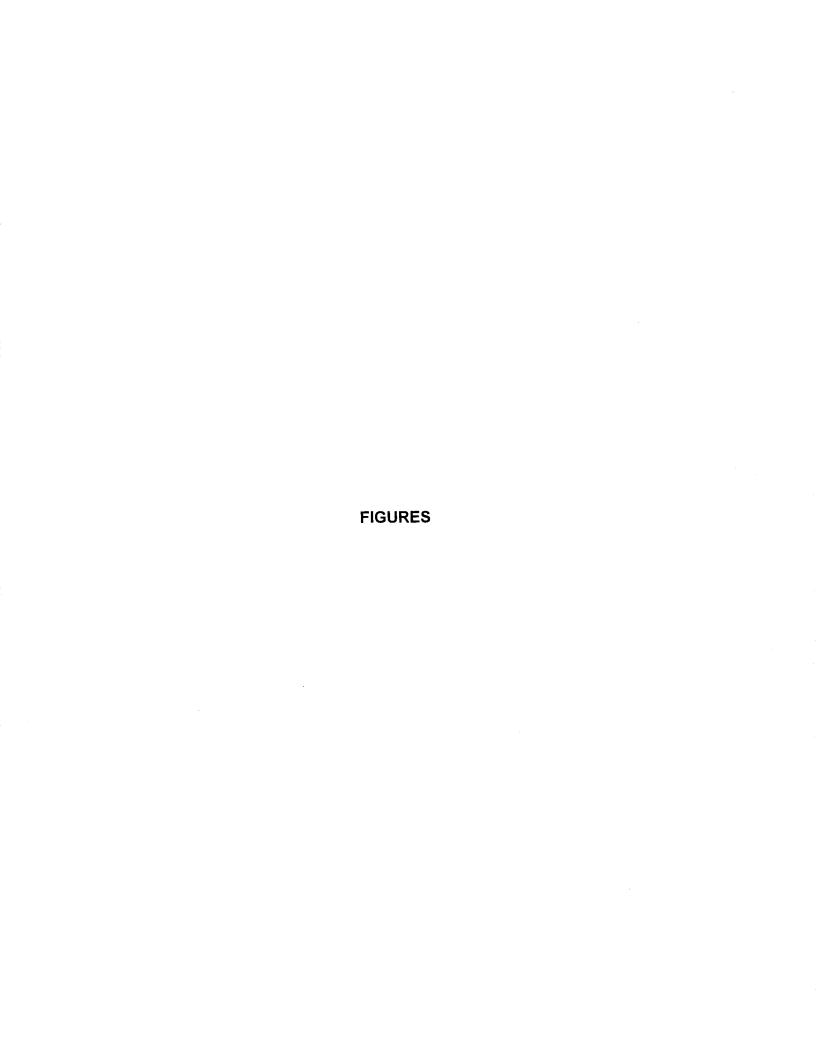
Outlying Landing Field Bronson, Pensacola, Florida Sites 100 and 102

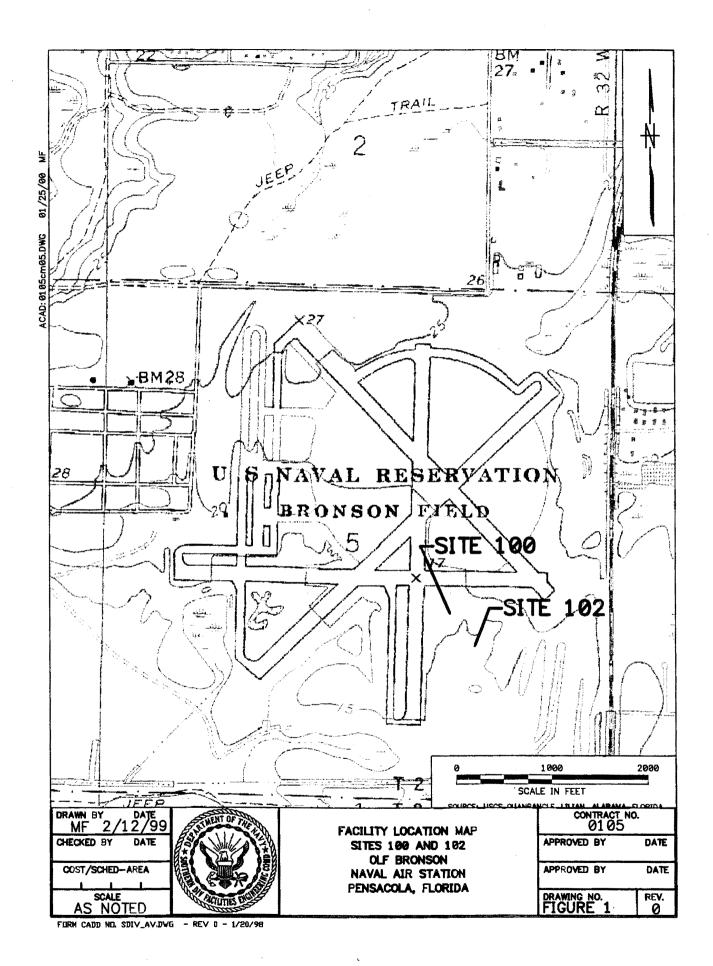
		Siles 100 and 10	JZ			
Sample No.		FB091099-01	ER091099-01	TB091099-01	102-MW-003-01	102-MW-004-01
Sample Location					BRO-102-3S	BRO-102-4S
Collect Date		9/10/99	9/10/99	9/10/99	9/9/99	9/9/99
- ··	FDEP Groundwater Criteria (ug/L)*		<u></u>			
Volatile ¹ (ug/L)						
Acetone	700.00	8		10	6	
Toluene	40.00		2			
Semi-Volatile ² (ug/L)						
None detected		NA	NA	NA		
Pesticides³ (ug/L)						
None detected		NA	NA	NA		
PCBs³ (ug/L)						
None detected		NA	NA	NA		
Metals ⁴ (mg/L)						
Aluminum	200.00	NA	NA	NA	1,230	318
Zinc	5000.00	NA	NA	NA	21.2	22.1
n	300.00	NA	NA	NA	1,860	
Lead	15.00	NA	NA	NA	10.5	

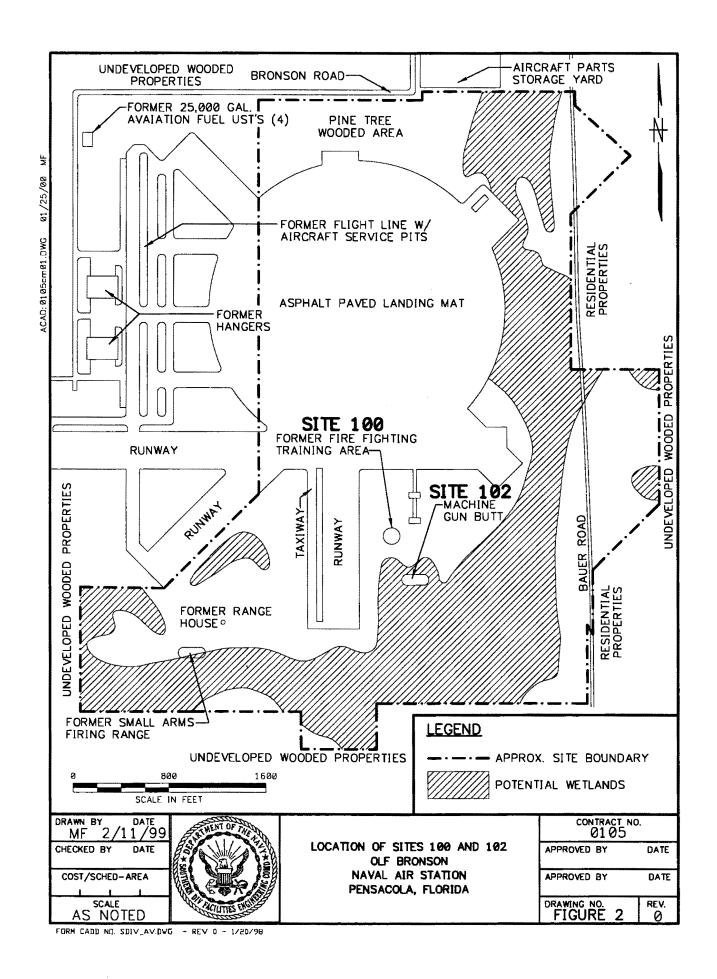
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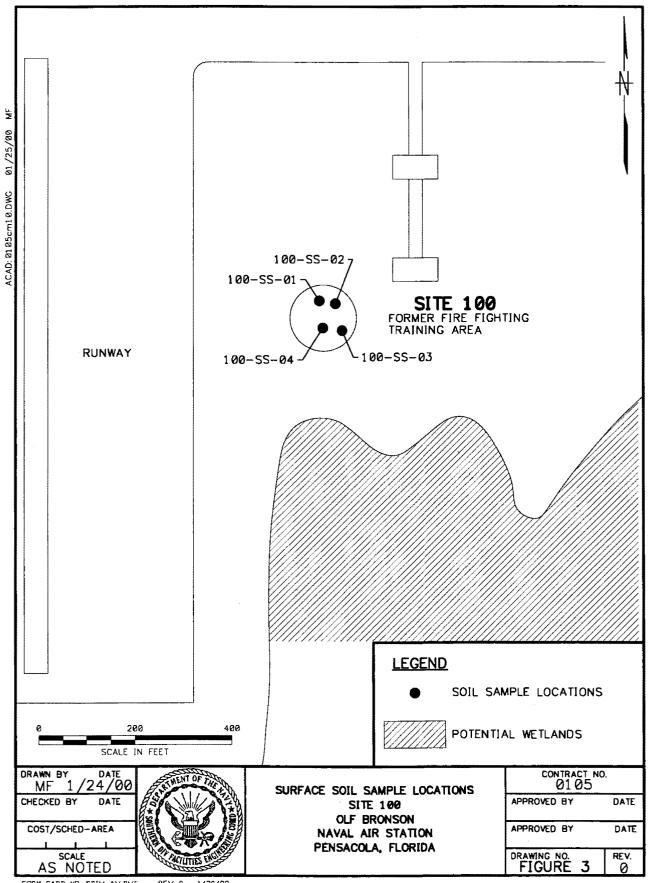
NA Not Analyzed

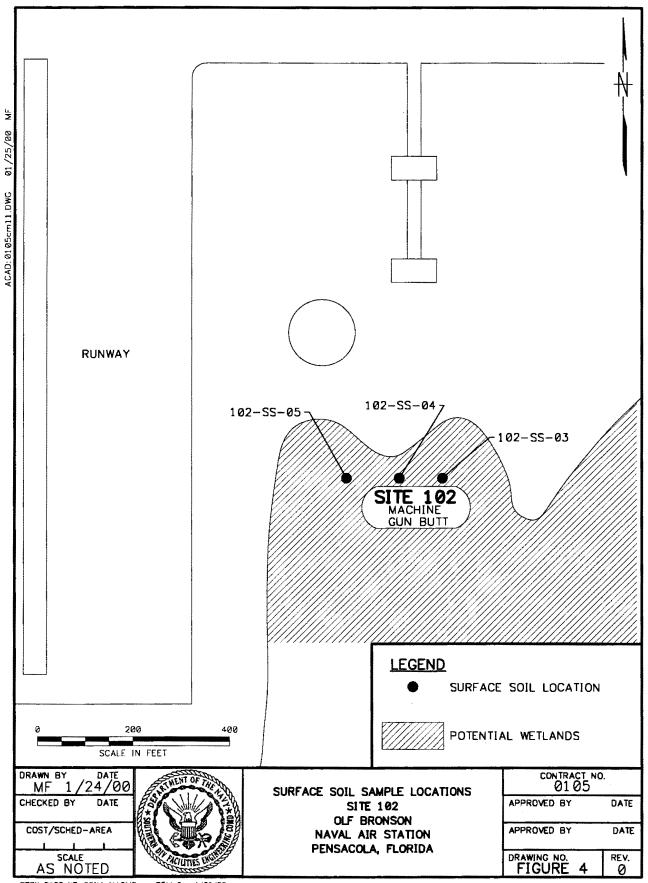
^{*} As provided in Chapter 62-777, F.A.C.

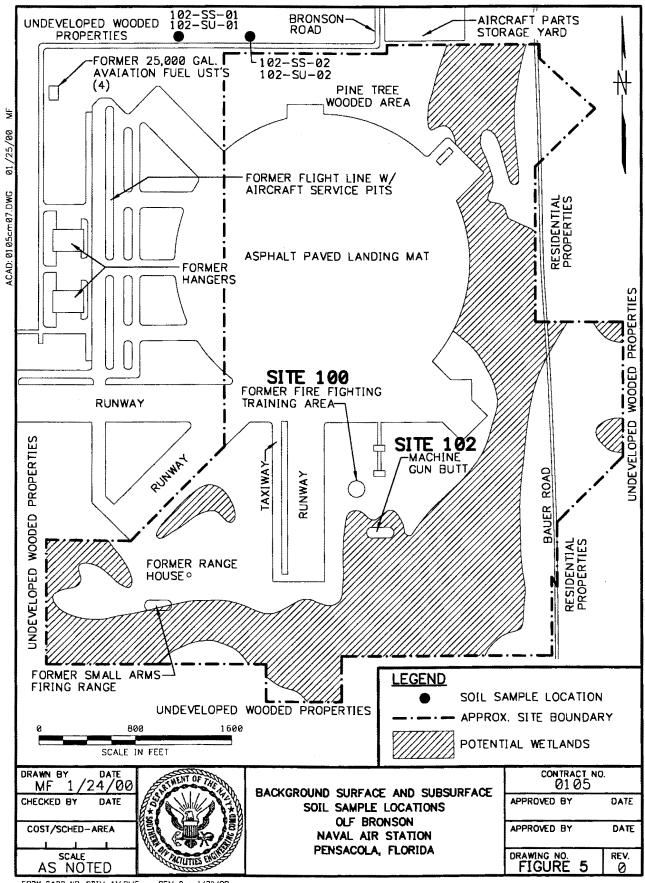


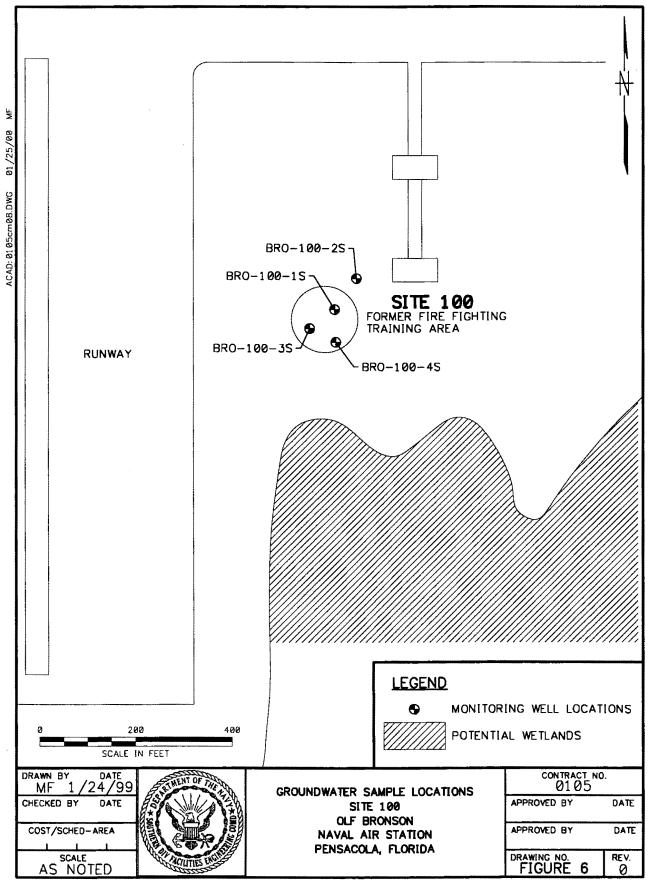


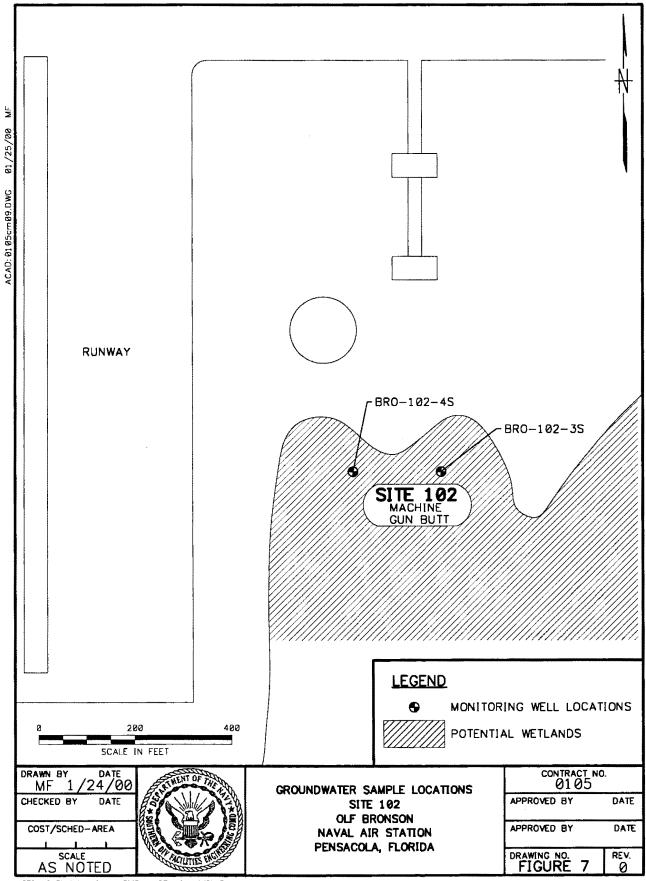


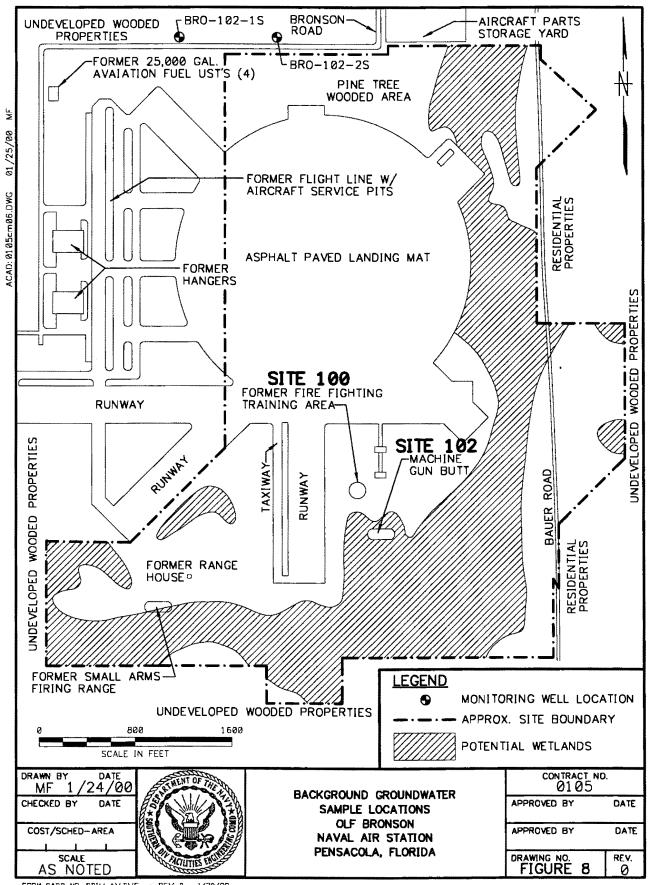


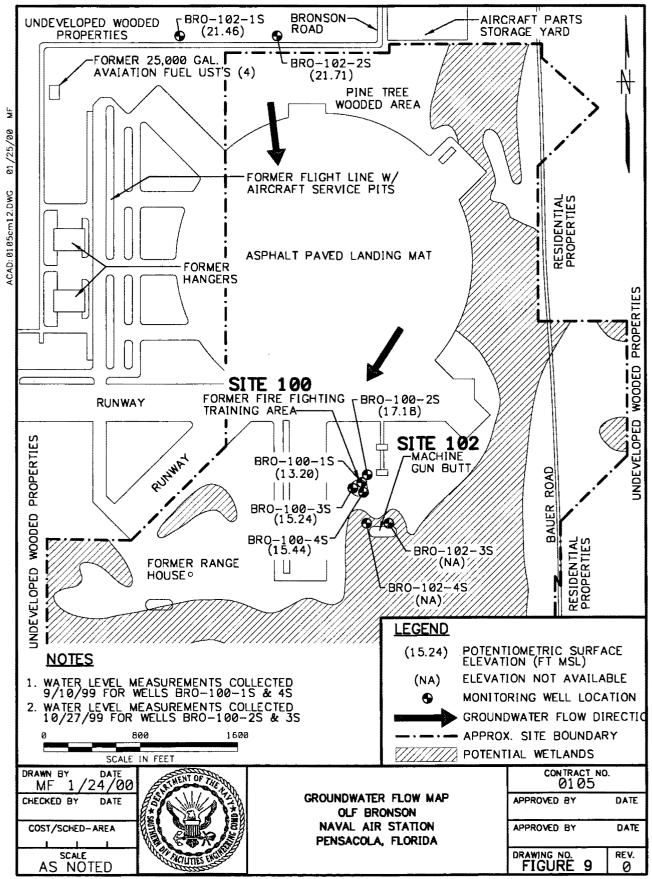












APPENDIX A

BORING LOGS

BORING LOG

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Background (ppm):

Well I.D. #:

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• Inclu	de mor	itor readi	er rock bring in 6 foo	ot intervals	@ borehok	e. Incr	ease reading frequency if elevated	d reponse rea	d. Drilli Background				
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Background (ppm):

Well I.D. #:

No

BORING LOG

PROJECT NAME: PROJECT NUMBER: DRILLING COMPANY:			NAS	$P \propto$.[- [Sionson	BORING N	UME	BER: /5/0-/00	<u> </u>	15			
PRO	JECT	NUMI	BER:	C.	7 <i>0</i>	649	36	BORING NUMBER: 1510-100-45 DATE: 9/9/99						
DRIL	LING	COM	PANY:		TEG			GEOLOGIS	3T:]					
DRIL	LING	RIG:			DPT			DRILLER:		J. Stevens	حب			
					M	ATE	RIAL DESCRIP	ΓΙΟΝ					ding	(ppm)
Sample No. and Type or RQD	(FL) or	Blows / 6" or RQD (%)	Sample Recovery / Sample Length		Consistenc	Color		'	U S C S	Remarks	Sample	Sampler BZ	Borehole**	Oriller BZ**
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Remarks:

Converted to Well:

Tt	Tetra Tech NUS, Inc.
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BORING LOG

Page <u>i</u> of <u>/</u>

PRO	JECT	Γ NAMI Γ NUM:	BER:	CTO 8	ensacol 36	a / O	LF Bronson BORING N DATE:	lo.:	BRO-102-1	<u>2</u>			
		COM	PANY:				GEOLOGI	ST:					
DRIL	LING	RIG:		DPT			DRILLER:		Joe Stenensen				
					N	IATE	RIAL DESCRIPTION			PID/FI) Rea	ding (ppn
Sample No. and Type or RQD	(Ft.) or	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	U S C S *	Remarks	Sample	Sampler BZ	Borehole**	Driller BZ**
	1					13cm	Fin Soul		Dog				
	7					L							
	3		1.4			Ton		ļ	Moist				L
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	de mon				D borehole.	Increase	e reading frequency if elevated reponse	read.	Drillir Background			_ [4	<u>5</u>

BORING LOG

		NAME	Ξ:	NAS.	P,0L	<u></u>	BORING DATE: GEOLOG	NUME	BER: 13 RO-10	- <u>ح</u> د	<u>ح</u>	<u>S</u>	
		NUM	BER:		TO 8	-6	DATE:		10/17/99	~~~			
		COM	PANY:					SIST:					
DRIL	LING	RIG:			OPT		DRILLER	:	J. Steven	<u>ب</u>			
					M	IATE	RIAL DESCRIPTION					ding	(ppm)
Sample No. and Type or RQD	(FL)	Blows / 6" or RQD (%)	Sample Recovery ! Sample Length	Lithology Change (Depth/Ft.) or Screened interval	Consistenc y	Color	Material Classification	บ ร ะ	Remarks	Sample	Sampler BZ	Borehole**	Oriller BZ**
	1					Box	Fin Soul		D. 1				
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		oring, ent			@ borehole	e. Incre	ease reading frequency if elevated rep	ponse re	ad. Dril	ling A	⊥_ \rea		
	arks:								Backgrour				Z
Con	verted	to We	ell:	Yes	X		No Well	I.D. #	Sam	·····			

APPENDIX B

SOIL SAMPLING FIELD FORMS

					Pag	e_(of_(
Project Site Nam Project No.: [] Surface So	oil	NASP 021 CTO 08	F Bionson 186	Sample ID No.: Sample Location: Sampled By: C.O.C. No.: Type of Sample: P: Low Concentration					
[] Other: [] QA Sampl	e Type:				oncentration Concentration				
GRAB SAMPLE DAT			% 1.50.7 B&			4. 1.			
Date: 9/8/9		Depth	Color		(Sand, Silt, Clay, Mo	oisture, etc.)			
Time: //zo Method: DPT Monitor Reading (ppm		4-5'	Lt.		l. Moist				
COMPOSITE SAMPL				NY SEC. 1		A decamb			
Date:	Time	Depth	Color	Description	(Sand, Silt, Clay, Mo	oisture, etc.)			
Method:									
Monitor Readings	 								
(Range in ppm):									
SAMPLE COLLECT		ATION:			· · · · · · · · · · · · · · · · · · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
TCL U	Analysis		Container Requ		Collected	Other			
		Metals, CN							
OBSERVATIONS / I	NOTES:			IMAP:					
		ackgrand .							
13R0-11	v2-15								
Circle if Applicable	: 164			Signature(s):	1				
MS/MSD	Duplicat	e ID No.;		7 <i>V.</i>	hlu				

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ne;	NAS Pens C 10 086	uco/u/04F	// Sample ID Sample Loc	No.: 102 Cation: Light	SOI ent Sitel
il				y. <u> </u>	unkli-
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e Type:			U High Co	oncentration	
A:		e signi			
	Depth	Color	Description (Sand, Silt, Clay, Mo	isture, etc.)
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<u> </u>	0-6"	Cerejish	San		!
				a. 1	
T		jiga salik	n Williams Na.		
Time	Depth	Color	Description (Sand, Silt, Clay, Mo	isture, etc.)
					
ON INFORMA	TION:	· Property of the second	. d. di		: '`;
Analysis				Collected	Other
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, PCIS,	Metals, C.N	1602			
					
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Duplicate	ID No.;		1 1/1 -	7 V.X	
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	ON INFORMA Analysis UUC PCB OTES: P Loca R O ~ 10	Soil Type: A: Depth O-6' EDATA: Time Depth ON INFORMATION: Analysis UOC PCB, Mctals, C.W COTES: Loca fiour - Sac LO ~ 107-175	Soil Type: Depth Color D-6" Crefish Depth Color Color Dr. Grand Color Color Don Information: Analysis Container Required Sq Encour Color C	Sampled B C.O.C. No. Type of Sa F Low Co High Color Description (Color Descriptio	Type: Depth Color Description (Sand, Silt, Clay, Mo

					Pag	eof
Project Site Na Project No.:		NASP 02F CTO 008	Bronson 56	Sample Loc Sampled By		Sp Z Eground Ever Klin
Surface S				C.O.C. No.:	·	
SubsurfactSediment				Type of Sai	mole:	
[] Other:				Low Co	ncentration	
[] QA Samp	le Type:			[] High Co	oncentration	
GRAB SAMPLE DA'						
Date: 9189		Depth	Color	Description (Sand, Silt, Clay, Mo	oisture, etc.)
Time: 1155 Method: 555 Monitor Reading (ppn	poon	0-6"	Lt. Brown	Som	J	•
COMPOSITE SAMP				ANGAR. N		
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Mo	oisture, etc.)
Method:						
Monitor Readings	1					
(Range in ppm):						
SAMPLE COLLECT	TION INFORMA Analysis	TION:	Container Requ		Collected	Other
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OBSERVATIONS /	NOTES:			MAP;		
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Project Site Na Project No.:	ame:	NASP 00	LF Browson	Sampled By: (.Frankl.					
B∠Surface S	Soil			C.O.C. No.:					
Subsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsurface Subsubsubsubsubsubsubsubsubsubsubsubsubsu					*************************************				
Sediment Sediment	t			Type of Sample:					
[] Other:				1 Low Concentration					
[] QA Samp	ole Type:				ncentration				
GRAB SAMPLE DA									
Date: KS 9/8		Depth	Color	Description (S	Sand, Sitt, Clay, Mo	sture, etc.)			
Time: 15 Z		.,,	7		1				
	SSROOM	0-6"	Brown	>a~					
Monitor Reading (ppi			,						
COMPOSITE SAMP	PLE DATA:								
Date:	Time	Depth	Color	Description (S	Sand, Silt, Clay, Moi	isture, etc.)			
Method:									
Monitor Readings				W.,					
(Range in ppm):									
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SAMPLE COLLECT	TION INFORMA	TION:	\$140 B. 140\$						
	Analysis		Container Requ	iirements	Collected	Other			
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Project Site Nar Project No.:	me:	NASP OF	CF Bronson	Sample ID Sample Lo Sampled E	No.: $\frac{100-9}{4-1-7}$ cation: $\frac{4-1-7}{4-1-7}$	65-03 Giteloo mklm
Surface Se	OII			C.O.C. No		
[] Subsurfac [] Sediment	e Soll			Type of Sa	imple:	
[] Other:					oncentration	
[] QA Sampl	le Type:		······································		oncentration	
GRAB SAMPLE DAT		Sychological Section				
Date: 9/8/99		Depth	Color	Description	(Sand, Silt, Clay, Mo	isture, etc.)
Time: 1510					۵	
Method: 555	100m	0-6"	Brown	Som	<i>J</i>	
Monitor Reading (ppn		i .	100000	*** **********************************		
COMPOSITE SAMPI	T		i daba, siras	The Agency C		
Date:	Time	Depth	Color	Description	(Sand, Silt, Clay, Mo	isture, etc.)
Method:						
Monitor Readings				·		
(Range in ppm):						
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				-		
SAMPLE COLLECT	ION INCODMA	TION:				A CARLON AND A CAR
OAMI EE GOLLEGT	Analysis	- 1995年 - 19	Container Requ	uirements	Collected	Other
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OBSERVATIONS /	NOTES:			MAP:		
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Project Site Name:					Page	<u> of</u>
Project No.:	NASC	02F	Bronson	Sample ID No Sample Locat Sampled By:		s-01 ghting To
¶≏Surface Soil				C.O.C. No.:		
[] Subsurface Soil				_	_	
[] Sediment				Type of Samp		
[] Other:				Low Conc		
[] QA Sample Typ	e:			High Cond	zentration	
RAB SAMPLE DATA:			e e e e e e e e e e e e e e e e e e e			
ate: 9/8/99		epth	Color		nd, Silt, Clay, Mois	ture, etc.)
ime: 1440				_ (
lethod: 558yoon	0-	6"	Brown	Soul	1	
Nethod: 555000 honitor Reading (ppm): MOMPOSITE SAMPLE DAT)		177.000			
OMPOSITE SAMPLE DAT	A:			Specifical Section		Alabat.
ate: T	ime [Depth	Color	Description (Sa	nd, Silt, Clay, Mois	ture, etc.)
lethod:				·		
Ionitor Readings						
Range in ppm):			<u> </u>			
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AMPLE COLLECTION IN	ORMATION:				sin sa s	. 12.1
Anal			Container Requi		Collected	Other
	~_		5 9 Enew	~ レスー	Carrow	
TCL VOC			7			
		0	<u> </u>			
TCL SUOC.	Past. Pt.	ß,	16 02			
	Past. Pt.	R,	<u> </u>			
TCL SUOC.	Past. Pt.	ß,	<u> </u>			
TCL SUCC.	Past. Pt.	IS,	<u> </u>			
TCL SUCC.	Past. Pt.	R,	<u> </u>			
TCL SUCC.	Past. Pt.	R	<u> </u>			
TCL SUOC.	Past. Pt.	IS,	<u> </u>			
TCL SUOC.	Past. Pt.	ß	<u> </u>			
TCL SUOC.	Post. PE		16 02	MAP:		

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Project Site Name Project No.: Surface State Subsurface State Subsurface S	oil	NHSP 01 C70 0	F Bronson 086	Sample ID Sample Lo Sampled E C.O.C. No	ocation: 7-7-7 By: 0-7-7	SS-02 H Sitela Tur K), ~
Sediment Other: QA Sample					ample: oncentration Concentration	
GRAB SAMPLE DAT	A:					
Date: 9/8/9		Depth	Color		(Sand, Silt, Clay, Mo	oisture, etc.)
Time: / 455 Method: SSS Monitor Reading (ppm	ROOM	0-6"	Brown	Sa		
COMPOSITE SAMPI	LE DATA:					
Date:	Time	Depth	Color	Description	(Sand, Silt, Clay, M	oisture, etc.)
Method:						
Monitor Readings						
(Range in ppm):						
SAMPLE COLLECT	ION INFORM.	ATION:		A SEC	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	4.144
T 211	Analysis		Container Req		Collected	Other
TCL U	000		59Euce	ne X 3		
TCL SU Metal	oc, Prs	t, PLB,	16 0	2		
OBSERVATIONS / I	NOTES:			MAP:		
Circle if Applicable	:			Signature(s):		
MS/MSD	Duplicate	e ID No.:		1		
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Page_/_ of _/_

NASP OLF Brouson Sample ID No.: Project Site Name: Project No.: Sample Location: Sampled By: Surface Soil C.O.C. No.: [] Subsurface Soil [] Sediment Type of Sample: [] Other: [] QA Sample Type: [] High Concentration GRAB SAMPLE DATA: Date: 9/9/99 Depth Description (Sand, Silt, Clay, Moisture, etc.) Color Time: 1030 Method: SS Snoor 0-6" Monitor Reading (ppm): Ø COMPOSITE SAMPLE DATA: Date: Color Description (Sand, Silt, Clay, Moisture, etc.) Depth Method: Monitor Readings (Range in ppm): SAMPLE COLLECTION INFORMATION: Analysis Collected Other **Container Requirements** UOC 5 9 Eucan TEL SUOC, Post, PCB THL My tals, CM **OBSERVATIONS / NOTES:** MAP: Circle if Applicable: Signature(s): MS/MSD **Duplicate ID No.:**

Project Site Name: Sample ID No.: Project No.: Sample Location: Sampled By: Surface Soil C.O.C. No.: () Subsurface Soil [] Sediment Type of Sample: [] Other: [] QA Sample Type: [] High Concentration GRAB SAMPLE DATA: Date: 9/9/99 Depth Color Description (Sand, Silt, Clay, Moisture, etc.) Time: 1015 Sand Lŧ. 0-6" Method: 555peon Brown Monitor Reading (ppm): 🇳 COMPOSITE SAMPLE DATA: Time Depth Color Description (Sand, Silt, Clay, Moisture, etc.) Date: Method: Monitor Readings (Range in ppm): SAMPLE COLLECTION INFORMATION: Other Analysis Container Requirements Collected Encur x 3 Past, PeB, SUOC 602 OBSERVATIONS / NOTES: MAP: Circle if Applicable: Signature(s): MS/MSD **Duplicate ID No.:**

Page / of /

l Soil	NASP OLF 19 670 0086	evouso~	Sample Loc Sampled B C.O.C. No. Type of Sa	mple:	5-05 i, te 10 e
A:	B		T Bassistian	(Canada Oille Oillean Ma	1-1
	Depth		Description	(Sand, Silt, Clay, Mo	isture, etc.)
	0-6"	24.	106)	
		Brown	Jane		
Time	Depth	Color	Description	(Sand, Silt, Clay, Mo	isture, etc.)
2.2					
		 			
N INFORMA	TION:				
		Container Re	quirements	Collected	Other
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c. 125	t. PCIZ	16 02			
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			Signature(s):	1 1 1	
Duplicate	ID No :			'	
	Soil Type: A: E DATA: Time ON INFORMA Analysis C, Post	Soil Type: A: Depth Co-G F DATA: Time Depth ON INFORMATION: Analysis Co-G Co-G	Soil Type: A: Depth Color Co-6" Ld. Brown EDATA: Time Depth Color ON INFORMATION: Analysis Container Re S 9 Ens Co. Post PC12 (C 02) Ls, CW	Sample Loc Sample Loc Sample Loc Sample B C.O.C. No. Soil Type of Sa Hallow Co I High Co I I I I I I I I I I I I I I I I I I	Sampled By: C.O.C. No.: Type of Sample: H-Low Concentration A: Depth Color Description (Sand, Silt, Clay, Mo BEDATA: Time Depth Color Description (Sand, Silt, Clay, Mo CO-G '' Color Description (Sand, Silt, Clay, Mo BON INFORMATION: Analysis Container Requirements Collected S. 7 Eucon X. 3 E. P. S. CCC 16 O2 Signature(s): / A Signature(s): / A Signature(s): / A

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Project Site Nam Project No.: [] Surface So [] Subsurface [] Sediment [] Other: [] QA Sample	il Soil	NASI OLIF E CT = 86	3,0000	Sampled B C.O.C. No. Type of Sa B/-Low-Co		102-25 -102-25 van Klin
I) CA Sample	; type.					
GRAB SAMPLE DATA	4,52,180			_	n. Ağıyın vin v.	
Date: 10/12/9 Time: 13.05	7	Depth	Color		(Sand, Silt, Clay, Mo	oisture, etc.)
Method: DPT	······································	5-6'	-Link	1 - Su	_O, Moist	
Monitor Reading (ppm)):	1	Brown	1-1	·	
COMPOSITE SAMPL				Salar Arak 1 Salar Pakija — G		
Date:	Time	Depth	Color	Description	(Sand, Silt, Clay, Mo	oisture, etc.)
					· · · · · · · · · · · · · · · · · · ·	
Method:						
Monitor Readings						
-				*		
(Range in ppm):		-	· · · · · · · · · · · · · · · · · · ·	ļ		
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SAMPLE COLLECTION		ATION:				
TC/ 1200	Analysis		Container Requ		Collected	Other
TCL VO	<u></u>		3 x 50 Ex	1 cm		
TCL SUDG	2154	PCB, TALmatels	16 02 Ce	-		
1-2-20	1221	100, 11,000	1000			
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OBSERVATIONS / N	IOTES:			MAP:		
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Circle if Applicable: MS/MSD		te ID No.:		Signature(s):	11	

APPENDIX C MONITORING WELL CONSTRUCTION DETAILS

OVERBURDEN MONITORING WELL SHEET

PROJECTNA SPansacola, OZF Bu	LOCATIO	N: NHSOLF Brons		
PROJECT NO. <u>C To</u>	BORING	BRO-102-15	METHOD: DPT	
LEVATION	DATE	10/12/89	DRILLING	
FIELD GEOLOGIST			DEVELOPMENT: NA	
		== F1 F1/4 T10 N OF TOD OF 6	NUMEROE ORGINO	
_Q [ELEVATION OF TOP OF S		
		- ELEVATION OF TOP OF F		
		- STICK -UP TOP OF SURF	ACE CASING;	
		- STICK-UP RISER PIPE:	5 ,	-
		 I.D. OF SURFACE CASING TYPE OF SURFACE CASI 		-
		THE OF SURFACE CASE	110.	
GROUND Y		- TYPE OF SURFACE SEAL	: Concente	
ELEVATION		· · · · · · · · · · · · · · · · · · ·	, .	_
		- RISER PIPE I.D.:		_
		TYPE OF RISER PIPE:	PUC40	
				_
		- BOREHOLE DIAMETER:	3"	_
		TYPE OF SEAL:	Bentonite	
	_	ELEVATION / DEPTH OF	G541.	11
		_ ELEVATION / DEPTH OF : — TYPE OS SEAL: Fine	,	
		- TIPE US SEAL: J-ILL	Jarel	-
		-		-
		T DEPTH TOP OF SAND PA	ick:	
	4	ELEVATION / DEPTH TOP	OF SCREEN:	11.6
			11 . 0	
		TYPE OF SCREEN:	40 FUC	_
		SLOT SIZE X LENGTH:		
		I.D. OF SCREEN:	1"	
		I.D. OF SCREEN.		-
			a. /	
		TYPE OF SAND PACK:	Medium	
				-
	i			
				, 11
		- ELEVATION / DEPTHBOT		111.
		- ELEVATION / DEPTH BO	_	1 //.
		TYPE OF BACKFILL BELC	OW OBSERVATION	
		WELL:	LIQUE.	- ,
		TELEVATION / DEPTH OF		

OVERBURDEN MONITORING WELL SHEET

PROJECT NASP	LOCATION: OL F Brows	DRILLER TEC-	
PROJECT NO. C7086	BORING Blo-102-25	METHOD: DPT	
ELEVATION	DATE 10/12/94	DRILLING	
FIELD GEOLOGIST		DEVELOPMENT: NA	
	ELEVATION OF TO	OP OF SURFACE CASING:	
	ELEVATION OF TO	P OF RISER PIPE:	
	STICK -UP TOP OF	SURFACE CASING:	
	STICK-UP RISER P	PIPE:	
	I.D. OF SURFACE (
	TYPE OF SURFAC	E CASING:	_
\\.			-
GROUND V	TYPE OF SURFAC	ESEAL: Coverete	-
ELEVATION			-
	RISER PIPE I.D.:	per	
	TYPE OF RISER PI	IPE: PUC 40	_
	A		-
	BOREHOLE DIAME	***************************************	- [
	TYPE OF SEAL:	Bentomit	-
			-
	ELEVATION / DEP	TH OF SEAL:	10.3
	TYPE OS SEAL:	Fine Sound	-
			-
■ ■	DEPTH TOP OF SA	AND PACK:	0.4'
	ELEVATION / DEP	TH TOP OF SCREEN:	104
	TYPE OF SCREEN	1: <u>PUC 40</u>	_
	SLOT SIZE X LENG	CTU: 0.01"	
	SLOT SIZE A LENG	στη. <u>υ.υ</u> /	-
	I.D. OF SCREEN:	_1"	_
			_
	TYPE OF SAND PA	ACK: Medicen	
			-
	ELEVATION / DEP	THBOTTOM OF SCREEN:	1104
		TH BOTTOM OF SAND PACK:	/
		LL BELOW OBSERVATION	
	WELL: ELEVATION / DEF	PTH OF HOLE:	- ///
	ELEVATION / DEF	TIN OF NOLE.	

APPENDIX D

GROUNDWATER SAMPLING FIELD FORMS



[] Domestic Well Data [X] Monitoring Well Data [] Other Well Type: [] QA Sample Type:	ell Data Well Data Type:					Sample ID No.: Sample Location: Sampled By: C.O.C. No.: Type of Sample: Low Concentra			
SAMPLING DATA:							100		
Date: 4/9/99	Color	pН	s.c.	Temp.	Turbidity	DO	Salinity	Other	
Time: /2/5 Method: PERISTALTIC	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA NA	
PURGE DATA:									
Date: 9/9/99	Time		Tec	T (C)	Tarabidity	T no			
	Time	pH 4.46	s.c.	Temp. (C)	Turbidity 352	167	Salinity	Other	
Method: PERISTALTIC	 	+		-			0		
Monitor Reading (ppm):	1144	467		28-2	191	1,66	0	ļ	
Well Casing Diameter & Material	1/51	4.47	0.059		158 OM/ BUID	1.54	O CHEET	<u></u>	
Type: 2" PVC				· · · · · · · · · · · · · · · · · · ·			A SHEET	· ·	
Total Well Depth (TD): Z-51	1159		0.035		109	0.84	ರಿ	ļ	
Static Water Level (WL): 6 11	1295			28.2	72	0.84	0	<u></u>	
One Casing Volume(gal/L):	1713	4.64	0.035	78.2	51	0.84	0		
Start Purge (hrs):									
End Purge (hrs):									
Total Purge Time (min):									
Total Vol. Purged (gal/L):									
SAMPLE COLLECTION INFORMA	TION:								
Analysis		Preser				Requirements	,	Collected	
TCL VOC		<u> </u>	CL	7	40 m	1/ 1/ 00	<i></i>		
Tel cunc		Ų.	.) _e n		- 111	7.			
TCL SUOC		+		+	Z. 11tr a	amlı			
TCL Rust F	2c13	40	, 	1 7	7 1 14	· amh		 	
(00)	<u> </u>			†		- un			
TAL Metals		Hz	No3		500 m	nl plust	·c		
TAL CN		1-1-	FLAD	H	1/4-	plastic			
	***************************************	 		 				-	

OBSERVATIONS / NOTES:									
OBSERVATION DESCRIPTION OF THE PROPERTY OF THE			A Rachatta		<u>dalla i municipa</u>	dia 1806 Sedenber by a			
Some laca	. L.		- 0	, , -	0				
Jane Ivea	· Trou	an	Sur	بد م	7				
107-05-107									
107-55-03									
Circle if Applicable:					Signature(s	el· / /			
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MIS/MISD Duphosic is ite.	•				I	1/1/2	^		



Page_/_ of _/_

Project Site Project No.:	Name: ı	NAS Pensacol	a OLI	E B.	onson	Sample Sample Sample	Location:	102-m 13-10-11 5: te 10	
[X] Monit	tic Well Data oring Well Data Well Type: mple Type:	3				C.O.C. Type of PLow	-	ntion	
SAMPLING DAT	A: Till				and the second				
Date: 9191	49	Color	рН	s.c.	Temp.	Turbidity	DO	Salinity	Other
Time: 13(Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTA	ALTIC								
PURGE DATA:							_35365		
Date: 4 9	199	Time	pН	s.c.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTA	ALTIC	1302	4.57	0.039	27.0	56	3.84	0	
Monitor Reading (ppm):	1307	4.56	0.040	27.0	30	3.24	<u>o</u>	
Well Casing Diam	neter & Material	1311	4.56		27.0	18	3.51	O	
Type: 2" PVC				SEE	LOW FL	OW PUR	GE DATA	A SHEET	
Total Well Depth	(TD): 2.5 1	1315	4.51	0.041	27.1	12	3.68	U	·
Static Water Leve									
One Casing Volum									
Start Purge (hrs):									
End Purge (hrs):									
Total Purge Time	(min).								
Total Vol. Purged			<u> </u>						
	CTION INFORMA	IL TION:		l	<u> </u>		1		
	Analysis		Preser	vative	i i i i i i i i i i i i i i i i i i i	Container R	equirements		Collected
TCL	VOC				7.	40 via			
TCL	SUOC			-	7	1Hr. a	unba_		
	73 -				ļ				
rest	1PCP				7	11tr.	and		
~T.1.1	22 / /				Sount +	ttu.	-1 - t:		
THL	metals				3 7	170.	nlusti:		<u> </u>
CN	0				 	1 to n	lester		
						<i>, , , ,</i>			
OBSERVATION	S/NOTES:							- 10 E	
Som	e locati	in as	102-	55-05	-				
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Project Site Name:	NAS Pensacol	a 086			Sample Sample Sample	Location:	BRU-10	02-15-01 02-15 uxlu-
[] Domestic Well Data[X] Monitoring Well Data[] Other Well Type:[] QA Sample Type:	.				C.O.C. Type of ∭CLow	•	ition	u » I, t
SAMPLING DATA:								
Date: 10/27/44	Color	pН	s.c.	Temp.	Turbidity	DO	Salinity	Other
Time: 1555	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC	('leen							Hesodor
PURGE DATA:		I						
Date: 10/77/99	Time_	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other 4
Method: PERISTALTIC	1520	5.71	0.129		86	0.43	0.0	6.61
Monitor Reading (ppm):	1537	5.45	0.099		49	0.19	10,0	4.56
Well Casing Diameter & Material	1550	5.28	0.04	22.0	2	0.21	0.0	6,54
Type: 2 PVC			SEE	LOW FL	OW PUR	GE DATA	A SHEET	
Total Well Depth (TD): / んん					<u></u>	<u> </u>		
Static Water Level (WL): 6.30								
Orie Casing Volume(gal/L): の に			_					
Start Purge (hrs): 1510								
End Purge (hrs): 155/								
Total Purge Time (min): 4								
Total Vol. Purged (gal/L): 4, 5								
SAMPLE COLLECTION INFORMA	TION:							in the second
Analysis		Preser	vative			equirements		Collected
Voc		1-10	/	244				
500e					1 to our	~		
Pest/PCB		-In	2:	2 41				<u> </u>
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OBSERVATIONS/NOTES:		L		L				
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6.3								
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[X] Monit [] Other \		NAS Pensacol	a			Sample C.O.C. I Type of [] Low	Location: d By:		5.3 20)
	imple Type.					U Migi	Concent	alion		1
SAMPLING DAT	At									
Date: 10-27	1-99	Color	рH	s.c.	Temp.	Turbidity	DO	Salinity	Other	
Time: \() 🛋		Visual	Standard	-	Degrees C	NTU	mg/l	%	NA.	_
Method: PERIST	ALTIC	promu	424	052341	92.0	<u>>/000/</u>	0.20			19 E B B B B
PURGE DATA:	00.							Mader Lev	(Elm. 8 -	.
Date: 10-27		Time	pH	s.c.	Temp. (C)	Turbidity	DO	Harry Leve	E-Biller	
Method: PERIST	ALTIC	1517	5.54	<u>ඉ-10ින</u>	23.4	2000	1.88	<u>ره.ها</u>	~200M	1/mir
Monitor Reading ((ppm):	1230	B-34	60.0	1.56	>1000	9.30	6.70	~200	_]
Well Casing Diam				<u> </u>						
Type: 2 PVG \"	PYC		i	SEE	LOW FL	OW PUR	GE DAT	A SHEET		
Total Well Depth	(TD): 1へ. 4。	まま	5.05	0.0%	Pec	006/5	0.91	روي.	*200	
Static Water Leve		1556		0.085		2/000		G,G9'	4100	1
	me(gal/L):	1603	4.94	0.084		2001		6.c9'	~100	7
Start Purge (hrs):		5				10.00				1
End Purge (hrs):										
	(min):46 min		-							
	(gal/L): 2, \ ax\		 				 	 		
	CTION INFORMA	FION!								
	Analysis		Preser	vative		Container R	equirements		Collected	
ValaV			HC1		(2)	400	nh Vial		ves	
540C			<u> </u>		(2)	1)	Ambe		Yi	┪.
Pest	PCBS		_		(2)	11	Ambe			
Cyani	de		Nai	KC	(2)	350	TT 500		Cc	
Metale	5		NK	()2	C(1)		Plassi		V	
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OBSERVATIONS	SINOTES				l .					
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	the vi	EII 4 7	VC +3≥	\$ turk	d utilize	ndver we	nt belo	PPP w	CAR the	.
	May 18	cadima.	of to	Hori	ba 4-10					
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[X] Monito [] Other W	Name:	NAS Pensacolo CTO	la <i>O</i>	EF 13.	tenso w	Sample ID No.: 100 - mw - col			
SAMPLING DATA									
Date: 9/10/9	14	Color	рН	s.c.	Temp.	Turbidity	DO	Salinity	Other
Time: 1245		Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTAI	LTIC								
PURGE DATA:									
Date: 9/10/	199	Time	pН	s.c.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTAI	LTIC	1209	5.42	0,070	28,4	288	2,69	0	
Monitor Reading (p	ppm): <i>O</i>	1214	5,20	0.060		69	2,09	0	
Well Casing Diame		1224	5,06		28,2	25	1.97	0	
_	1/4" PUC	+323			LOW FL		·		
Total Well Depth (1		1230	5.03	0.057	28.2	18	1.63	0	
Static Water Level		1236		0.056		14	2.20	0	
One Casing Volum		1240		0.056		11	2.19	0	
	-	1245	_	0.055		10	2.61	0	
Start Purge (hrs):	1/5 /	1610	رس, د	<u>ردن, 0</u>	20.1	10	6.01		
End Purge (hrs):		 	 	 	 		-		·
Total Purge Time (<u> </u>		
Total Vol. Purged (<u> </u>				
SAMPLE COLLEC		10N;	T Praces	41	T	Ctainer B	ente		- H4-nd
	nalysis ノのと		Preser	rvative e	1 7 r	40 m;	equirements		Collected
166	760		- F-1	<u></u>		40 m:	Vien		//
TCI	SUOC		4	عد	Ζx	1 Itu.	anh		
Russ	+/PC13		¥	OC.	ic	U U	. T	-	V
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Project Site Name: Project No.: [] Domestic Well Data [X] Monitoring Well Data [] Other Well Type: [] QA Sample Type:		ia 0 To 44	<u> </u>	Zionsa	Sample Sample Sample C.O.C. Type of [] Low	Site 10 R.F.v.e	1-002-01	
SAMPLING DATA:								
Date: 09/099	Color	pН	s.c.	Temp.	Turbidity	DO	Salinity	Other
Time: 1420	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC	close		Spanish State (Spanish Spanish Spanish				\mathcal{O}	
PURGE DATA:		1			1			
Date: 9/10/99	Time	pН	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	/334	5.50	.061	28.6	445	0,96	0	
Monitor Reading (ppm):	1340	5.38	,060	28,7	101	0.89	0	
Well Casing Diameter & Material	1345	5,32	,057	28.6	80	1.24	0	
Type: 2" PVE 1/4" PVC	47/10		SEE		OW PUR	GE DAT	A SHEET	
Total Well Depth (TD): 4,5 ′	1350	5.30	.055	28.6	63	1.33	0	
Static Water Level (WL): さいが	1355	5.36	,054	28,6	37	1.35	0	
One Casing Volume(gal/L): の、z3G	1400	5,21	,054	28.7	25	1,93	0	
Start Purge (hrs): /3/5	1405	5,34	,053	28.7	19	2,07	0	
End Purge (hrs):	14/3	5,17	1052	29.1	24	7.30	0	
Total Purge Time (min):								
Total Vol. Purged (gal/L):								
SAMPLE COLLECTION INFORMA	TION:							2
Analysis		Preser	vative		Container R	equirements		Coilected
TCL VOC		1-10	<u> </u>	7 Y	(40 ml	vial)
							·	
TCC SUDE		400		2 4	CIItu.	amlu		4
Past 17C13		400		1				7
TAL Metals CN		HN	ort	ج	av ml	plastie		y -
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OBSERVATIONS / NOTES:								
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GROUNDWATER SAMPLE LOG SHEET

							Page	<u></u>
Project Site Name: Project No.:		Location:	Site 100	0				
Domestic Well Data X Monitoring Well Data Other Well Type: QA Sample Type:	C.O.C. I Type of Name Low	C.O.C. No.: Type of Sample: \text{\mathbb{N}}^\text{Low Concentration} \text{\mathbb{I}} High Concentration						
SAMPLING DATA:								
Date: 9/10/94	Color	pH	S.C.	Temp.	Turbidity	DO mo/l	Salinity	Other
Time: //30 Method: PERISTALTIC	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA NA
PURGE DATA:								
Date: 9/10/49	Time	рН	s.c.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	0455	5.56	0.054	27.4	773	1.50	0	
Monitor Reading (ppm):	1020	5.54	0.052		999	1.44	0	
Well Casing Diameter & Material	1040	3.37	0.0x	1	77	1.49	0	
Type: 2" PVC	1070	3.22	^==		.OW PUR			-
Total Well Depth (TD): 4.5	1058		1		24	1.58	O	
Static Water Level (WL): 0.8	1105	5.16	0.045		32		0	
			0.044	27.8	1	1.69		+
One Casing Volume(gal/L): 6, 24					15		0	-
Start Purge (hrs): 0949	1114	5.10		1	3/77	0.72	0	-
End Purge (hrs): 1/3/	1175	5.71			केट्ट इन्टर्स	0.59	0	-
Total Purge Time (min): 148	1171	4.45	0.043	27.9	2022	1.22	0	
Total Vol. Purged (gal/L): /3.5	TON:		e traditional de la company					
Analysis		Preser	rvative	T	Container F	Requirements		Collected
TCL VOC			100	7.X		Vial		Z Connected
			·			<u> </u>		Í
tch Succ		40		2 X	11th an			X
Post/PCB		Q o			U/			
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OBSERVATIONS / NOTES:								
MW BRO-	-100 ~	35						
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Monitor Dapitotte is	,,				1 /	// // V	/ X	



GROUNDWATER SAMPLE LOG SHEET

Page <u></u> ✓ of <u></u>

Project Site Name: Project No.: [] Domestic Well Data [X] Monitoring Well Dat [] Other Well Type:	Sample C.O.C. Type of	Location: d By:	Sijte. KiFia	w-004-01 e/00 iankl:				
[] QA Sample Type:						n Concentr		
SAMPLING DATA:								
Date: 9/10/44	Color	pН	s.c.	Temp.	Turbidity	DO	Salinity	Other
Time: 0970 Method: PERISTALTIC	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
PURGE DATA:	1						<u></u>	
100	Time	u	- 6	T (C)	T	DO.	C-11-14	O41
	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	0903	5.29	0.055	27.2		1.87	0	
Monitor Reading (ppm):	0416	5.27	0.035	27.0	6	1.93	0	
Well Casing Diameter & Material		 	CEE	LOWE		CE DAT	A CLIEFT	
Type: 2" PVC		-	- OFF	LUVV FL	OVV PUR	GE DAT	A SHEET	
Total Well Depth (TD): 5		ļ	 		 		ļ	
Static Water Level (WL): 475	<u> </u>		<u> </u>	<u> </u>		ļ		
One Casing Volume(gal/L): o. 27		ļ				_		
Start Purge (hrs): 0 $\%$ $\%$								
End Purge (hrs): 0917		ļ				ļ <u>.</u>	ļ	
Total Purge Time (min): 39		ļ					ļ	
Total Vol. Purged (gal/L): 4.5								
SAMPLE COLLECTION INFORMA	TION:							
Analysis		Preser				equirements	· · · · · · · · · · · · · · · · · · ·	Collected
TCL VOC		1-1	<u>e į</u>	2 40	to ml Vic	<u></u>		
TCL SUCC		 		2 ¥	1 itr. a	ualus.		
TEL Pust/PCB		1		Z V		man	• •	
THE Metals		H	N103	500 int 1 +	e plast			
ew		No	OH	iHv.	plastic			
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OBSERVATIONS / NOTES:								
(NASA) CORRESPONDE CONTRACTOR CON								
MW too	110 R	P12-11	0 .	10				
11(30)	W- ()	(10)	,	>				
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Circle if Applicable:					Signature(s): /	1	
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MONITORING WELL DEVELOPMENT RECORD

vell: BRo	-102-1-5	Depth to Bottom (ft.): 11.74	Responsible Personnel: Jeff Alexander
ite:		Static Water Level Before (ft.): 6.35	Drilling Co.: teg
ate installed:	10.12.99	Static Water Level After (ft.):	Project Name: OLF Branson
ate Developed:	10-16.99	Screen Length (ft.):/o'	Project Number:
Dev. Method:)	Specific Capacity:	
	sacktell's	Casing ID (in.):	

Time	Estimated Sediment Thickness	Cumulative Water Volume	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	рН	Specific Conductance (Units)	Turbidity (NTU)	Remarks (odor, color, etc.)
	(Ft.)	(Gal.)						P.O.
19-15-0	1515	~ .5 ltr.		23.3	5.68	.145	499	φ.73
1625 a	1525	1.5 gel		23.1	5.77	./17	999	6.57
1433	1533	1.5 gcl 2.5 gal		22.7	5.53	.093	999	1.04
	15 35	3 921		22.6	5.32	4280	870	1.6]
1638	15 38	\$3.5		22.6	5.04	.075	264	1.65
164-	1540	4 971		22.6	4,81	,072	/38	0.35
1645	1545	5 991		22.6	4.74	.067	7-5	0.31
n Att.								
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MONITORING WELL DEVELOPMENT RECORD

Well: BRO - 102 -25	Depth to Bottom (ft.): 10.40	Responsible Personnel: Jeff Alexander
	Static Water Level Before (ft.): 6.90	Drilling Co.: <u>teg</u>
Date Installed: 10 · 12 · 99	Static Water Level After (ft.):	Project Name: OLF Bronson
Date Developed: 10.16.99	Screen Length (ft.):	Project Number:
Dev. Method:	Specific Capacity:	
Pump Type: Peristaltic	Casing ID (in.):/ "	

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	рΗ	Specific Conductance (Units)	Turbidity (NTU)	Remarks (odor, color, etc.)
1617-05		5 991		23.7	4.60	.106	999	5.45
161715		~ 1.5		23.7	4.67	,089	999	3.45
		- 2.5		23.7	4.74	,083	999	3.08
16/A22 14/A35		-6		23.6	4.75	.077	999	5.34
1655		-12		23.7	4.67	.074	999	3.26
1405	STOP	* ONE	25 gallong	purged, no	drop	in turbid	ifu.	about development
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APPENDIX E

SOIL AND GROUNDWATER LABORATORY ANALYTICAL DATA SHEETS

"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck Tetra Tech NUS Foster Plaza VII 661 Andersen Dr. Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 02SS02. The 9 aqueous and 11 soil samples were taken from the field on September 8th, 9th and 10th, 1999 and received at Ceimic Corporation on September 9th and 11th, 1999.

These samples are reported under Ceimic Project Number 990799 which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D Laboratory Manager

NP/dii

Enclosures

cc: Mr. Terry Hansen

Tetra Tech NUS

1311 Executive Center Dr.

Ellis Bldg.

Suite 220

Tallahassee, FL 32301

Mr. Arnold Lamb

Tetra Tech NUS

794 S. Military Trail

Deerfield Beach, FL 33442

CHAIN OF CUSTODY

Chain of Custody

Original Chain of Custo oes to Laboratory

97077 0900 Page 7

Project				t Name	Cooler	Temp.				·····				s	Cooler Temp. Analyses							
	000			ASP OLFBIDISOL			201		Ŋ		1/2		fak		J							
	ers (please	e print	Llo		Cooler	#			76/500c		Rs+1/2		TAL Metak		Cranide	1, 1 34			.*			
Lab ID	1949 Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	727	рΗ	12	рΗ	72,	рН	747	рΗ	Cya	рΗ		рН	p)	Remarks		
01	914	1155	C	1φz-55-φz	5	4	Х		K		X	×	, ,		X		•					
-07	4/8	1070	G	102-55-61	5	4	Ϋ́		X		X		X		X				7	,		
			I	102-54.61	S	4	χ		X		Υ		×		X							
-04.	9/4	1455	G.	100-55-φ2	S	4	χ		X		Y		Χ		¥							
05	918	1440	C.	100-55-41	5	8	У		X		X		χ		×		5			ms/ms/2		
0 (p	9/8		<u>ڻ</u>	100-55- DD	5	4.	Υ		X.		X		X		<u> </u>					MS/MSD.		
				100-55-43	5	4	Х		X		X		X		X							
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. '	Project #	79		Refinquished by (signature) Refinquished by (signature)		9/5	Date/Time	17	200	L	ceived by	FX	-							Date/Time		
	Location	, 		Remodulished by (signature)			Date/ Lime	3		Re	ceived by	(sigi	nature)			^				Date/Time		
_	きか			Relinquished by (signature)			Date/Time	3		Re	celved by	Celn	nic (signat	(Po)	Jol) [N		C	7.9.90	Date/Time		
Remark	s:									·	<u> </u>	(- 11/2 - 1 - F			

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Chain of Custody

Original Chain of Custody goes to Laboratory

тојес	t #			it Namo	Cooler	Tomp. Analyses														
\mathcal{L}°	TO DO	086	NI	45 Punsacola OLFBion	المالية						M				2					
amp	ers (pleas	6 printil			Cooler	#1					100		1 10		13		l			
			<u></u>	abby R. Bobo		-	120		33	١,	32		7 7		1					
Lab	Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	702 100	рН	757 S/CoC	pН	アゾ	рН	Metels	рΗ	Ganil	рΗ	рΗ		рН	Remarks
10	4/4	1315	سف	102-Inw-004-01	W	8	X		Y		لإ		· >	. !	X					
11	4/9	1215	C <u>C</u> _	102 mw-003-01	W	8	X		Y		Ϋ́		X		×					
12	9/4	1045	C	102-55-05	5	4	X		У		Y		Y		X					
13.	9/9	1015	C_	107-55-03	5	4	Ϋ́		Y		X		¥		Y					·
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Celmic	Project #		,	Relinquished by (signature)		Ÿ	Date/Time	//	1800	Re-	ceived by (sigr	nature)						ב	Date/Time
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(12)

Chain of Custody

Original Chain of Custody nes to Laboratory

/ 1 V / 1 1 | Base |

² rojec	1 #			t Name	Cooler	Մ ջաթ.	ηρ. Analyses													
C-	TO P	486	NY	+S Pensacola OLFBrown	6	. —					M				,			П		
Sampl	ers (pleas	e print)	l	Butty R. Bobo	Cooler		7 0		756 502		Pot/128		教儿		Sanila					
Lab ID	1994 Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	757 100	рΗ	56	pН	$\mathcal{J}_{\mathcal{k}}$	рН	1/2 / See	pН	ું	ρН		рН	pl	Remarks
16	9/10	1245	0	100-mw-001-01	ربا	4	Ý.		Ϋ́		Y		· K		X					
17	9/10	1420	G	100 - MW-602-01	بي	4	X		Y		V		X		Y				×	
195	4/10	1130	G	100 - MW - 003-01	W	8/	X		X		Y		Y		X					
17.	9/10		G	100- MW-DD-01	W	8	X		K		X		X		K					Dup
20	9/10	υίζο	C-	100-mw-604-01	W	. 8	K.		K		X		K		X `					•
	9/10	1210	ره ا	40 FB \$91699-01	در	8	X		Υ		K		K		Y					Field Blank
	l i		1	ER 491699-01	w	5/	X		Y		¥		¥		4					Equip. Kinsu
	4/10	0400	G	TB 491499-41	W	Z	X													Trip Blank
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	Project #	79		Relinquished/by (sig/lature)		9/10/	Date/Time		બ	Re	ceived by	(sig								Date/Time
	· · · · · · · · · · · · · · · · · · ·	<u> </u>		Relinquished by (signature)			Date/Time)		Re	ceived by	(sig	nature)							Date/Time
	Location			Relinquished by (signature)			Date/Time			Re	aelwed by	Ceir	nic (signati	ufle)	77	Λ		. 141	arti .	Date/Time
北	10	-		Troundarings of fordinaries				-			Im	N	1	Ŧ,	lo	h	\mathcal{M}	9/0	0/99	Date/Time
Remar	(5:														0	4	- • • • •			

CEIMIC CORPORATION Sample Receiving Checklist

LIMS #	Cooler Number:	
Client	Tetra Tech IVUS Number of Coolers: 1	
Project:	NASP OLFBranson Date Received: 9,9,6	19
A.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9,9,9	
ι.	Have designated person initial here to acknowledge receipt of cooler: AS (date): 9 / 9 / 99	
2.	Did cooler come with a shipping slip (airbill, etc.)?	:0
	If YES, enter carrier name & airbill number here: tent = 1	
3.	Were custody seals on outside of cooler? How many & where: VES	(<u>i</u>)
5.	Did you screen samples for radioactivity using a Geiger Counter?	0
6.	Chain of Custody #: 0460	
7.	Were custody papers scaled in a plastic bag & taped inside to the lid?	0
3.	Were custody papers filled out properly (ink, signed, etc.)?	0
9.	Did you sign custody papers in the appropriate place?	0
10.	Was project identifiable from custody papers?	0
11.	If required, was enough ice used?	0
В.	LOG-IN PHASE: Date samples were logged-in: 9,99 by (print): AM St. John (sign): My	
12.	Describe type of packing in cooler:	
ι3.	Were all bottles sealed in separate plastic bags?	0
l4.	Did all bottles arrive unbroken and were labels in good condition?	O
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?	0
16.	Did all bottle labels agree with custody papers?	O
17.	Were correct containers used for the tests indicated?	0
13.	Were samples received at the correct pH?	0
19.	Was a sufficient amount of sample sent for tests indicated?	0
20.	Were bubbles absent in VOA samples? If NO, list by sample#:)
21.	Laboratory labelling verified by: (Initials): (date): /	

CEIMIC CORPORATION Sample Receiving Checklist

LIMS #	990799	Cooler Number:
Client:	Tetra Tech NUS	Number of Coolers:
Project:	CTO 0086	Date Received: 9 / 10/99
A.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/10/	90
1.	Have designated person initial here to acknowledge receipt of cooler:	1 - 00
2.	Did cooler come with a shipping stip (airbill, etc.)?	(YES)NO
	If YES, enter carrier name & airbill number here: FedEX	-
3.	Were custody seals on outside of cooler? How many & where: 1 front seal date: 9 / 9 / 99	(.YES)NO
4.	Were custody seals unbroken and intact at the date and time of arrival	YES NO
5.	Did you screen samples for radioactivity using a Geiger Counter?	.Reading: NO YES NO
ó.	Chain of Custody #: 04(0)	
7.	Were custody papers sealed in a plastic bag & taped inside to the lid?	
3.	Were custody papers filled out properly (ink, signed, etc.)?	:VES NO
9.	Did you sign custody papers in the appropriate place?	YES XO
10.	Was project identifiable from custody papers?	TES YO
11.	If required, was enough ice used?	Type of ice: CUBE (FES)NO
В.	by (print): Amy St. Show (sign):	J. John
12.	Describe type of packing in cooler:	
13.	Were all bottles sealed in separate plastic bags?	
14.	Did all bottles arrive unbroken and were labels in good condition?	
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?	
15.	Did all bottle labels agree with custody papers? 522 Connective	Action YES (10)
17.	Were correct containers used for the tests indicated?	
13.	Were samples received at the correct pH?	YES NO
19. ·	Was a sufficient amount of sample sent for tests indicated?	YES NO
20.	Were bubbles absent in VOA samples? If NO, list by sample#:	YES NO
21.	Laboratory labelling verified by: (Initials): (date): / /	

CEIMIC CORPORATION Sample Receiving Checklist

LIMS #		Cooler Number: 1-3
Client:	Tetra Tech	Number of Coolers: 3
Project:	NAS Pensacola	Date Received: 9 / 11 / 99
Α.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9,11,7	99
ι.	Have designated person initial here to acknowledge receipt of cooler:	(date): <u>9 / 11 / 99</u>
2.	Did cooler come with a shipping slip (airbill, etc.)?	YES) NO
	If YES, enter carrier name & airbill number here: tedex	_
3.	How many & where: 1, front seal date: 9 / 10 / 99	seal name: FN ()
4.	Were custody seals unbroken and intact at the date and time of arrival	
5.	Did you screen samples for radioactivity using a Geiger Counter?	Reading: <u>/V</u> (YES) NO
6.	Chain of Custody #: 0969	
7.	Were custody papers sealed in a plastic bag & taped inside to the lid?	(ES)(0
3.	Were custody papers filled out properly (ink, signed, etc.)?	
9.	Did you sign custody papers in the appropriate place?	(YES)NO
10.	Was project identifiable from custody papers?	
11.	If required, was enough ice used?	Type of ice: HVE (YES NO
В.	by (print): Any St. Sahn (sign): (sign):	J. John
12.	Describe type of packing in cooler:	
13.	Were all bottles sealed in separate plastic bags?	YES NO
14.	Did all bottles arrive unbroken and were labels in good condition?	YES 1/10
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?	YES NO
16.	Did all bottle labels agree with custody papers?	YES(NO)
17.	Were correct containers used for the tests indicated?	YES NO
18.	Were samples received at the correct pH?	
19.	Was a sufficient amount of sample sent for tests indicated?	(YES)10
20.	Were bubbles absent in VOA samples? If NO, list by sample#:	YES NO
21.	Laboratory labelling verified by: (Initials): (date):/	
QAT026	· ·	

CEIMIC

-- Corporation

"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John	Date: <u>910.9</u> 9	
Out of Control Situation: Laboration (describe what happened, when, where an	I on sample didn't agree with custod and how, and who discovered the problem) Packaged together contained on event sample I.D. This sample to Identify it.	ly Papa e-signal was
labeled with an X	to Identity it.	
Client(s): Teticatech Samples Affected: Clien+ID (reference both Ceimic and client IDs) Ce	1: 102-53-103 eimic ID: 990799-13	
Action Taken: (if client contacted, reference client conta	. · act name and date)	
Name:	Date:	
Proof of Return to Control:		
Supervisor: Date:	QA/QC Officer: Date:	
		•
Corrective Action Trac	CVIDO	

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John	Date: 9.13.99	
Out of Control Situation: Misla	holod samples	
(describe what happened, when, where and	d how, and who discovered the problem)	
According to the chain,	there should have been 8 sontainers of.	San
TT # 100-mw-002-01 and	3 Scontainers of sample ID#100-mw-003-0	1.
The civiley contained 1	6 containers of sample TD# 100-mux003-	10-
1	the the 100-min-2003-ch TD / 1.66-min	1.
hese samples was the	Time sampled and they were separated coording to that, ie; samples labeled 100 mu that sample Time of 14:20 were given the Cerr sample # 100-mw-co2-01	. – –
Client(s): 7 ctra Tech	tha sund Time of 11/32 labeled 100 mu	j-003
(reference both Ceimic and client IDs)	x sample # 100-mus-con of	nuc
mic IDs 100mw-002014 10	00mw-003-01 Ceimic:990799-17 & 990799-1	13
	•	
Action Taken: (if client contacted, reference client contacted)	t name and date)	
(1) Chem comacted, rejerence chem comac	Terry Hansen - LeeLeck	
Called + Loxell	Terry yanger (Local Co	
Name: Hung leibortz	Date: 9-14-99	
Proof of Return to Control:		
	0) 10 0 0 00	
Supervisor:	QA/QC Officer:	
Date:	Date:	
Corrective Action Trac	— — — — — — — — — — — — — — — — — — —	
QAT0237	Page #	
In Dean Knauss Drive Narragan	sett RI 02882 - Tel: (401) 782-8900 - Fax: (401) 787-8905	

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

Corrective Action Form

QAT0237	Page #
	Action Tracking #
Supervisor:	QA/QC Officer: Date:
Proof of Return to Con	rol:
Name: Ham Link:	vi Tc Date: 9-14-99
Action Taken: (if client contacted, reference Called +	e client contact name and date) Terry Housen + Ceiteik
Client(s): Tetra To Samples Affected:	ch ceimic ID: 990799-16 client ID: 100-mw-col-ol
Sample ID# The ceimic =	-col This sample most closely mutches 100-mw-001-ol on the chain and was ass D= that was given to that sample.
A containage m	Sample ID missing last two numbers. Jen, where and how, and who discovered the problem) arked for TAL metals analysis was labeled This some of a most closely injurt the
Name: AMU St. J	

"Analytical Chemistry for Environmental Management"

850-656-5458 385-9899 Terry Hanson Trichassee

Fax Cover Sheet

To:	letra lech NUS
	Lee Lect Terry Hanson
Fax #:	412-721-4040 / (850) 385- 9860
From:	Henry Leibaite
Date:	9-13-49
Re:	CTO \$\$6 NAS Pensacola
# of Pages: (includes cover sheet)	
should be I	tuner labelled IB 100-MW-001- =0=100-MW-001-01 according to COC.
~ \ ·	ested 16 sample, labelled ID# 100-MW-003-0/
and none 1	abelled IDE 100 -MW-001-01. The Engine To 21000
Ceimic as	signed 100-100 200 100 was specific
to each	sarple. Time 1420 = 100-MW-002-01

Telephone Log

Tetra Tech NUS Client:

770 413 0865 FAX X6733 Telephone:

Roger Franklin Contact:

Project:

CTO. 86 2:15pm 9-14-94 Date & Time:

Ceimic's Contact: Henry

Summary:

i) ID's corrected property by Ceimic 990799. 2) Next sampling in Detober (later)

3) Contact in field during sampling is Ron Jayner (850) 452 4611 X122

VOLATILE ANALYSES

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V120922-B1

Date Sample Analyzed: 09/22/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
proethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone ·	ND	10
4-Methyl-2-Pentanone	ND	10

Reported by:	7	Approved by:	G/(,

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V120922-B1

Date Sample Analyzed: 09/22/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Compound	. Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	113	52 - 149
Dibromofluoromethane	106	65 - 135
Toluene-d8	69	65 - 135
Bromofluorobenzene	76	65 - 135

		CIZ	
Reported by:	Approved by:	47(

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	I
"Tyl Chloride	ND	l
proethane	ND	I
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	l
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone ·	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	Approved by:	\angle	

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Recovery(%)	QC Limits(%)
76	62 - 139
78	75 - 125
85	75 - 125
87	75 - 125
	76 78 85

		11.7
Reported by:	Ŋ	Approved by:

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
proethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	l
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	l
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	Approved by:	<u>~</u>	(
		•	

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	I
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1 .
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	108	75 - 125

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Laboratory ID: 990799-01

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
yl Chloride	ND	7
Loroethane	ND	7
Methylene Chloride	13	7
Acetone	190	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone ·	ND	14
4-Methyl-2-Pentanone	ND	14

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 102-SS-02

Laboratory ID: 990799-01

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Sample Concentration	Quantitation Limit
ND	7
	Concentration ND

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	76	65 - 135
Bromofluorobenzene	82	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Cheni	:: Leti	ra Tech	1 NUS

Client Sample ID: 102-SS-01

Laboratory ID: 990799-02

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 87

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
· vl Chloride	ND	7
.oroethane	ND	7
Methylene Chloride	12	7
Acetone	120	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 102-SS-01 Laboratory ID: 990799-02

Date Sampled: 09/08/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 87 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	75	65 - 135
Bromofluorobenzene	80	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 102-SU-01 Laboratory ID: 990799-03

Date Sampled: 09/08/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 93 Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Promomethane	ND	5
yl Chloride	ND	5
Chloroethane	ND	5
_ Methylene Chloride	11	5
Acetone	54	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	- 11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform ,	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01 Laboratory ID: 990799-03

Date Sampled: 09/08/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 93 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	85	65 - 135
Toluene-d8	74	65 - 135
Bromofluorobenzene	81	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-SS-02 Laboratory ID: 990799-04

Date Sampled: 09/08/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 83 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	. 6
Bromomethane	ND	6
yl Chloride	ND	6
nioroethane	ND	6
Methylene Chloride	12	6
Acetone	110	12
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
J.2-Dichloropropane	ND	6
rans-1,3-Dichloropropene	ND	6
Frichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone ·	ND	12
4-Methyl-2-Pentanone	ND	12

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Date Sampled: 09/08/99

Client Sample ID: 100-SS-02

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Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

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Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluenc	ND	6
Chlorobenzene	ND	6
- Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
I,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	93	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	86	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-SS-01 Laboratory ID: 990799-05

Date Sampled: 09/08/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 88 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
'yl Chloride	ND	6
oroethane	ND	6
Methylene Chloride	11	6
Acetone	130	13
Carbon Disulfide	ND	· 6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
I, I, I-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	17	13
4-Methyl-2-Pentanone	ND	13

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Laboratory ID: 990799-05

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	84	52 - 149	
Dibromofluoromethane	87	65 - 135	
Toluene-d8	80	65 - 135	
Bromofluorobenzene	96	65 - 135	

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"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY **VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Matrix Spike ID: 990799-05

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
I,I-Dichloroethene	151	166	9	20	60 - 128
Trichloroethene	135	141	4	20	57 - 145
zene	148	162	9	20	72 - 124
Luene	141	149	6	20	71 - 135
Chlorobenzene	136	149	9	20	72 - 135

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	89	52 - 149
Dibromofluoromethane	94	94	65 - 135
Toluene-d8	74	79	65 - 135
Bromofluorobenzene	78	91	65 - 135

Reported by:	Approved by: \widehat{Q}/\overline{Q}
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⁺ Dry weight basis.
* These limits are provided for advisory purposes.

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client	Letra	Tech	Nι	15

Client Sample ID: 100-22-DD

Laboratory ID: 990799-06

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 84

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND ·	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	13	6
Acetone	79	12
Carbon Disulfide	ND	. 6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	. 6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	12
4-Methyl-2-Pentanone	ND	12

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Laboratory ID: 990799-06

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 84

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
rene	ND	6
Corobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	78	65 - 135
Bromofluorobenzene	89	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-SS-03

Laboratory ID: 990799-07

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 94

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	8
Bromomethane	ND	8
Vinyl Chloride	ND	8
Chloroethane	ND	8
Methylene Chloride	18	8
Acetone	520	16
Carbon Disulfide	ND	8
1, I-Dichloroethene	ND	8
1,1-Dichloroethane	ND	8
1,2-Dichloroethene (total)	ND	. 8
Chloroform	ND	8
1,2-Dichloroethane	ND	8
2-Butanone	ND	16
1,1,1-Trichloroethane	ND	8
Carbon Tetrachloride	ND	8
Bromodichloromethane	ND	8
1,2-Dichloropropane	ND	8
trans-1,3-Dichloropropene	ND	8
Trichloroethene	ND	8
Dibromochloromethane	ND	8
1,1,2-Trichloroethane	ND	8
Benzene	ND	8
cis-1,3-Dichloropropene	ND	8
Bromoform	ND	8
2-Hexanone ·	ND	16
4-Methyl-2-Pentanone	ND	16

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-SS-03

Laboratory ID: 990799-07

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 94

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	8
1.1,2,2-Tetrachloroethane	ND	8
lene	ND	8
Culorobenzene	ND	8
Ethylbenzene	NÐ	8
Styrene	ND	8
Total Xylenes	ND	8

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	94	65 - 135
Foluene-d8	83	65 - 135
Bromofluorobenzene	92	65 - 135

Reported by:	Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS	
Client Sample ID: 100-SS-04	Laboratory ID: 990799-08
Date Sampled: 09/08/99	Date Sample Analyzed: 09/22/99
Date Sample Received: 09/09/99	Associated Method Blank: V120922-B1
Matrix: Soil	Dilution Factor: I
Percent Solids: 86	Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	11	6
Acetone	110	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	. ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	13
4-Methyl-2-Pentanone	ND	13

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Reported by:	Approved by:	u/	1	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-SS-04

Laboratory ID: 990799-08

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 86

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1 1,2,2-Tetrachloroethane	ND	6
aene .	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Foluene-d8	76	65 - 135
Bromofluorobenzene	81	65 - 135

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Reported by:	Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) **VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B**

Client: Tetra Tech NUS		
Client Sample ID: TB090899-1		Laboratory ID: 990799-09
Date Sampled: 09/08/99		Date Sample Analyzed: 09/19/99
Date Sample Received: 09/09/99		Associated Method Blank: V150919-B
Matrix: Aqueous		Dilution Factor: 1
		Concentration in: μ g/L (ppb)
Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	2	1
Acetone	23	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	i
1,2-Dichloroethane	ND	1
2-Butanone	6	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	. 1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5
Reported by:	Approved	 d/
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: TB090899-1

Laboratory ID: 990799-09

Date Sampled: 09/08/99

Date Sample Analyzed: 09/19/99

Date Sample Received: 09/09/99

Associated Method Blank: V150919-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
iene	ND	1
cinorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	85	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	95	75 - 125
Bromofluorobenzene	96	75 - 125

Reported by:	Approved by:	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

	Тетга	

Client Sample ID: 102-MW-004-01

Laboratory ID: 990799-10

Date Sampled: 09/09/99

Date Sample Analyzed: 09/19/99

Date Sample Received: 09/11/99

Associated Method Blank: V150919-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone ·	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	Approved by:		·
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client	: Tetra	Tach	NHIC
CHUIL	icua	I CCII	NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99 Date Sample Analyzed: 09/19/99

Date Sample Received: 09/11/99 Associated Method Blank: V150919-BI

Matrix: Aqueous Dilution Factor: 1

Concentration in: μ g/L (ppb)

Laboratory ID: 990799-10

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
uene	ND	1
calorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	97	75 - 125

Reported by:	Approved by:	6/(
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Reported by:

Client Sample ID: 102-MW-003-01	Sample 1D: 102-MW-003-01 Laboratory	
Date Sampled: 09/09/99		Date Sample Analyzed: 09/19/99
Date Sample Received: 09/11/99		Associated Method Blank: V150919-B1
Matrix: Aqueous		Dilution Factor: 1
		Concentration in: µg/L (ppb)
Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	6	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	l
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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LΙ	ient:	і сіга	i ech	NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
iene	ND	1
Catorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	62 - 139
Dibromofluoromethane	91	75 - 125
Foluene-d8	102	75 - 125
Bromofluorobenzene	104	75 - 125

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Reported by:	<u> </u>	Approved by:	1/1	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05 Laboratory ID: 990799-12

Date Sampled: 09/09/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 93 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethanc	ND	6
Methylene Chloride	9	6
Acetone	150	13
Carbon Disulfide	ND	6
I,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	24	13
4-Methyl-2-Pentanone	15	13

Reported by: Approved by:	<i></i>

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample 1D: 102-SS-05

Laboratory ID: 990799-12

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 93

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Thene	ND	6
orobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	77	65 - 135
Bromofluorobenzene	88	65 - 135

Reported by:	Approved by:	Q/ (7

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample 1D: 102-SS-03

Laboratory ID: 990799-13

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 79

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	99	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Laboratory ID: 990799-13

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 79

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
T menc	ND	7
robenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	92	65 - 135

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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- 1	1001	: Tetra	Lech	NII

Client Sample ID: 102-SS-04

Laboratory ID: 990799-14

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 92

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	72	13
Carbon Disulfide	ND	, 7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7 .
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone ·	ND	13
4-Methyl-2-Pentanone	ND	13

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Reported by:		Approved by:	4/(

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04 Laboratory ID: 990799-14

Date Sampled: 09/09/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99 Associated Method Blank: V120922-B1

Matrix: Soil Dilution Factor: 1

Percent Solids: 92 Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachlorocthane	ND	7
iene	ND	7
Carobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	· 7

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	88	52 - 149	
Dibromofluoromethane	92	65 - 135	
Toluene-d8	75	65 - 135	
Bromofluorobenzene	85	65 - 135	

Reported by:	Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: TB090999-01

Laboratory ID: 990799-15

Date Sampled: 09/09/99

Date Sample Analyzed: 09/20/99

Date Sample Received: 09/11/99

Associated Method Blank: V150919-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	l
Methylene Chloride	2	1
Acetone	39	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	Ī
2-Butanone	15	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	7	Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: TB090999-01

Date Sampled: 09/09/99

Date Sample Analyzed: 09/20/99

Date Sample Received: 09/11/99 Associated Method Blank: V150919-B1

Matrix: Aqueous Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Laboratory ID: 990799-15

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1.1,2,2-Tetrachloroethane	ND	1
iene	1	1
Culorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	101	62 - 139
Dibromofluoromethane	104	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	108	75 - 125

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Laboratory ID: 990799-16

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99		Date Sample Analyzed: 09/22/99		
Date Sample Received: 09/11/99		Associated Method Blank: V150922-E		
Matrix: Aqueous		Dilution Factor: 1		
		Concentration in: μg/L (ppb)		
Target Analyte	Sample Concentration	Quantitation Limit		
Chloromethane	ND	1		
Bromomethane	ND	1		
Vinyl Chloride	ND	l I		
Chloroethane	ND ND	1		
Methylene Chloride	ND ND	5		
Acetone Carbon Disulfide	ND ND	1		
1,1-Dichloroethene	ND	1		
1,1-Dichloroethane	ND	i		
1,2-Dichloroethene (total)	ND	ì		
Chloroform	ND	1		
1,2-Dichloroethane	ND	1		
2-Butanone	ND	5		
1,1,1-Trichloroethane	ND	i		
Carbon Tetrachloride	ND	1		
Bromodichloromethane	ND	1		
1,2-Dichloropropane	ND	1		
trans-1,3-Dichloropropene	ND	1		
Trichloroethene	ND	1		
Dibromochloromethane	ND	1		
1,1,2-Trichloroethane	ND	i		
Benzene	ND	i 1		
cis-1,3-Dichloropropene	ND ND	1 1		
Bromoform .	ND ND	5		
2-Hexanone 4-Methyl-2-Pentanone	ND ND	5		
	ND			
Reported by:	Approved	by:		

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Ullent	: Tetra	Lech	NUS

Client Sample ID: 100-MW-001-01

Laboratory ID: 990799-16

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: μ g/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
uene	ND	1
orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	l

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	106	62 - 139
Dibromofluoromethane	101	75 - 125
Toluene-d8	106	75 - 125
Bromofluorobenzene	108	75 - 125

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: 100-MW-002-01

Laboratory ID: 990799-17

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	<u>,</u> 1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	9	Approved by:	GI	/(
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	ĺ
uene	ND	. 1
lorobenzene	ND	1
Ethylbenzene	ND	I
Styrene	ND	I
Total Xylenes	ND	· I
•		

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	111	75 - 125

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Reported by: _	 Approved by:	9/

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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L	ıcm		ctra	Lech	NUS	

Client Sample ID: 100-MW-003-01 Laboratory ID: 990799-18

Date Sampled: 09/10/99 Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99 Associated Method Blank: V150922-B1

Matrix: Aqueous Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acctone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	l
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	Approved by:	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Laboratory ID: 990799-18

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit		
Tetrachloroethene	ND	1		
1,1,2,2-Tetrachloroethane	ND	1		
T luene	ND	1		
orobenzene	ND	1		
Ethylbenzene	ND	1		
Styrene	ND	1		
Total Xylenes	, ND	· 1		

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	97	62 - 139	
Dibromofluoromethane	96	75 - 125	
Foluene-d8	110	75 - 125	
Bromofluorobenzene	109	75 - 125	

Reported by: ______ Approved by: _____

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Ľ	ient.	Tetra	Lech	NIIN	

Client Sample ID: 100-MW-DD-01

Laboratory ID: 990799-19

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: μ g/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
rans-1,3-Dichloropropene	ND	I
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	4	Approved by:	0/		
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Laboratory ID: 990799-19

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: μ g/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Terrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
iene	ND	1
orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	-1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)	
,2-Dichloroethane-d4	98	62 - 139	
Dibromofluoromethane	98	75 - 125	
Foluene-d8	107	75 - 125	
Bromofluorobenzene	109	75 - 125	

Reported by:	X	Approved by:	1/	<u> </u>	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Laboratory ID: 990799-20

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	l
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	I
Acctone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	I
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	X	Approved by:	l/	\leq	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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	111111	T CHEST	I PC D	1811.5

Client Sample ID: 100-MW-004-01

Laboratory ID: 990799-20

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
tene	ND	1
Corobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	· 1

ND = Not detected

Surrogate Compound		Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4 Dibromofluoromethane		98 96	62 - 139 75 - 125
Toluene-d8	- 3	105	75 - 125 75 - 125
Bromofluorobenzene		111	75 - 125

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Reported by:	<u> </u>	Approved by:	9/(

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V120922-LCS

Date Sample Analyzed: 09/22/99

Matrix: Soil

Associated Method Blank: V120922-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	43	86	. 60 - 128
Trichloroethene	50	41	82	57 - 145
Benzene	50	43	87	72 - 124
Toluene	50	43	86	71 - 135
Chlorobenzene	50	44	87	72 - 135

^{*} These limits are provided for advisory purposes.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	82	52 - 149
Dibromofluoromethane	94	65 - 135
Toluene-d8	88	65 - 135
Bromofluorobenzene	91	65 - 135

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Reported by: _	 Approved by:		

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V150919-LCS

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Associated Method Blank: V150919-B1

Concentration: $\mu g/L$ (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	93	68 - 124
Trichloroethene	5	5	104	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	100	71 - 132
Chlorobenzene	5	5	104	77 - 128

hese limits are provided for advisory purposes.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	99	75 - 125

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Reported by:	(X)	Approved by:

SEMIVOLATILE ORGANIC ANALYSES

100-22-DD La Name: <u>CEIMIC CORP</u> Contract: <u>TETRA TECH</u> Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-06 Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: ____16 decanted: (Y/N) N___ Date Extracted: 09/14/99 Concentrated Extract Volume: ____500(uL) Date Analyzed: 09/30/99 Injection Volume: 2.0(uL) Dilution Factor: _____5.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 108-95-2-----Phenol 940 U 111-44-4-----bis(2-Chloroethyl)Ether 940 U 95-57-8----2-Chlorophenol 940 U 541-73-1----1,3-Dichlorobenzene 940 U 106-46-7----1,4-Dichlorobenzene 940 U 100-51-6-----Benzyl Alcohol U 940 95-50-1-----1,2-Dichlorobenzene 940 U 95-48-7----2-Methylphenol 940 U 108-60-1-----2,2'-oxybis(1-Chloropropane) U 940 106-44-5-----4-Methylphenol U 940 621-64-7----N-Nitroso-Di-n-Propylamine U 940 67-72-1------Hexachloroethane____ 940 U 98-95-3-----Nitrobenzene 940 U 78-59-1------Isophorone U 940 88-75-5----2-Nitrophenol 940 U 105-67-9-----2,4-Dimethylphenol 940 U 65-85-0-----Benzoic Acid 1900 U 111-91-1-----bis(2-Chloroethoxy)Methane U 940 120-83-2-----2,4-Dichlorophenol 940 U 120-82-1----1,2,4-Trichlorobenzene 940 U 91-20-3-----Naphthalene 940 U 106-47-8-----4-Chloroaniline U 940 87-68-3-----Hexachlorobutadiene 940 U 59-50-7----4-Chloro-3-Methylphenol U 940 91-57-6-=---2-Methylnaphthalene 940 U 77-47-4------Hexachlorocyclopentadiene 940 U 88-06-2----2,4,6-Trichlorophenol 940 U 95-95-4----2,4,5-Trichlorophenol U 1900 91-58-7----2-Chloronaphthalene 940 U

88-74-4----2-Nitroaniline

208-96-8-----Acenaphthylene

131-11-3-----Dimethyl Phthalate

606-20-2----2,6-Dinitrotoluene

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1900

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ORGANICS ANALYSIS DATA SHEET

100-22-DD

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-06 Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: _____16 decanted: (Y/N) N____ Date Extracted: 09/14/99 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99 Injection Volume: __2.0(uL) Dilution Factor: _____5.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 99-09-2----3-Nitroaniline_____ 1900 U 83-32-9------Acenaphthene 940 U 51-28-5----2,4-Dinitrophenol U 1900 100-02-7----4-Nitrophenol 1900 U 132-64-9-----Dibenzofuran U 940 121-14-2----2,4-Dinitrotoluene____ 940 U 84-66-2-----Diethylphthalate 940 U 7005-72-3----4-Chlorophenyl-phenylether 940 U 86-73-7-----Fluorene 940 U 100-01-6----4-Nitroaniline 1900 U 534-52-1----4,6-Dinitro-2-Methylphenol 1900 U 86-30-6----N-Nitrosodiphenylamine (1) U 940 101-55-3-----4-Bromophenyl-phenylether 940 U 118-74-1-----Hexachlorobenzene____ U 940 87-86-5----Pentachlorophenol 1900 U 85-01-8-----Phenanthrene 940 U 120-12-7-----Anthracene 940 U 86-74-8-----Carbazole 940 Ŭ 84-74-2-----Di-n-Butylphthalate 940 Ŭ 206-44-0-----Fluoranthene_____ 940 U 129-00-0-----Pyrene 940 U 85-68-7-----Butylbenzylphthalate 940 U 91-94-1----3,3'-Dichlorobenzidine 940 U 56-55-3-----Benzo(a)Anthracene 940 U 218-01=9=-----Chrysene 940 Ū 117-81-7-----bis(2-Ethylhexyl)Phthalate J 250 117-84-0-----Di-n-Octyl Phthalate 940 U 205-99-2----Benzo(b) Fluoranthene 940 U 207-08-9-----Benzo(k)Fluoranthene 940 Ū 50-32-8-----Benzo (a) Pyrene Ų 940 193-39-5----Indeno(1,2,3-cd)Pyrene____ 940 U 53-70-3-----Dibenzo(a,h)Anthracene U 940 191-24-2----Benzo(g,h,i)Perylene 940 U

1X ORGANICS ANALYSIS DATA SHEET

100-MW-001-01

La Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) WATER Lab Sample ID: 990799-16 Lab File ID: Sample wt/vol: 1000 (g/mL) ML DW986 Level: (low/med) LOW Date Received: 09/11/99 % Moisture: _____ decanted: (Y/N) N____ Date Extracted: 09/15/99 Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/23/99 Dilution Factor: 1.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q 108-95-2----Phenol U 111-44-4-----bis(2-Chloroethyl)Ether 5 U 95-57-8----2-Chlorophenol 5 U 541-73-1-----1,3-Dichlorobenzene 5 U 5 106-46-7----1,4-Dichlorobenzene U 100-51-6-----Benzyl Alcohol 5 U 95-50-1-----1,2-Dichlorobenzene 5 U 95-48-7----2-MethyIphenol 5 U 5 108-60-1----2,2'-oxybis(1-Chloropropane) U 106-44-5-----4-Methylphenol 5 U 5 621-64-7----N-Nitroso-Di-n-Propylamine U 5 67-72-1-----Hexachloroethane U 98-95-3-----Nitrobenzene 5 U 5 78-59-1------Isophorone U 88-75-5----2-Nitrophenol 5 U 105-67-9-----2,4-Dimethylphenol 5 U 65-85-0-----Benzoic Acid 5 U 111-91-1-----bis(2-Chloroethoxy) Methane 5 U 5 120-83-2----2,4-Dichlorophenol U 120-82-1----1, 2, 4-Trichlorobenzene 5 U 91-20-3-----Naphthalene 5 U 5 106-47-8-----4-Chloroaniline U 87-68-3-----Hexachlorobutadiene 5 U 59-50-7----4-Chloro-3-Methylphenol 5 U 91-57-6----2-Methylnaphthalene 5 U 77-47-4-----Hexachlorocyclopentadiene 5 U 88-06-2----2,4,6-Trichlorophenol 5 Ū 95-95-4-----2,4,5-Trichlorophenol 10 U 91-58-7----2-Chloronaphthalene U 5 88-74-4----2-Nitroaniline 10 U 131-11-3-----Dimethyl Phthalate 5 U 208-96-8-----Acenaphthylene 5 U 606-20-2----2,6-Dinitrotoluene U

100-MW-001-01

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) WATER Lab Sample ID: <u>990799-16</u> Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW986 Level: (low/med) LOW____ Date Received: 09/11/99 % Moisture: _____ decanted: (Y/N) N___ Date Extracted: 09/15/99 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99 Injection Volume: 2.0(uL) Dilution Factor: ____1.0 GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or uq/Kq) UG/LQ 99-09-2----3-Nitroaniline____ 10 U 83-32-9-----Acenaphthene 5 U 51-28-5----2,4-Dinitrophenol U 10 100-02-7----4-Nitrophenol____ 10 U 132-64-9------Dibenzofuran U 5 121-14-2----2,4-Dinitrotoluene U 5 84-66-2-----Diethylphthalate 5 U 7005-72-3----4-Chlorophenyl-phenylether 5 U 86-73-7-----Fluorene 5 U 100-01-6----4-Nitroaniline U 10 534-52-1----4,6-Dinitro-2-Methylphenol 10 IJ 86-30-6----N-Nitrosodiphenylamine (1) 5 U 101-55-3----4-Bromophenyl-phenylether 5 U 118-74-1----Hexachlorobenzene 5 U 87-86-5----Pentachlorophenol U 10 85-01-8-----Phenanthrene 5 U 120-12-7-----Anthracene_____ 5 U 86-74-8-----Carbazole 5 U 84-74-2----Di-n-Butylphthalate 5 U 5 206-44-0-----Fluoranthene U 5 129-00-0-----Pyrene U 85-68-7-----Butylbenzylphthalate 5 U 91-94-1----3,3'-Dichlorobenzidine 5 U 56-55-3-----Benzo(a)Anthracene____ 5 U 5 218-01=9=----Chrysene U 117-81-7-----bis(2-Ethylhexyl)Phthalate 5 U 5 117-84-0-----Di-n-Octyl Phthalate U 205-99-2----Benzo(b) Fluoranthene 5 U 5 207-08-9-----Benzo(k) Fluoranthene U 5 50-32-8-----Benzo(a) Pyrene U 193-39-5-----Indeno(1,2,3-cd)Pyrene 5 U 5 53-70-3-----Dibenzo(a,h)Anthracene U 191-24-2----Benzo(g,h,i)Perylene U

L Name: <u>CEIMIC CORP</u>	Contract: TETRA TECH
Lab Code: <u>CEIMIC</u> Case No.: <u>CT0086</u>	SAS No.: SDG No.: 02\$S02
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: 990799-17
Sample wt/vol: 1000 (g/mL) ML	Lab File ID: DW987
Level: (low/med) <u>LOW</u>	Date Received: 09/11/99
% Moisture: decanted: (Y/N)	N Date Extracted: 09/15/99
Concentrated Extract Volume: 1000	(uL) Date Analyzed: 09/23/99
Injection Volume: 2.0(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: CAS NO. COMPOUND	CONCENTRATION UNITS:
108-95-2	S

100-MW-002-01

ab Name: CEIMIC CORP Cont	ract: TETRA TECH
ab Code: <u>CEIMIC</u> Case No.: <u>CT0086</u> SAS	S No.: SDG No.: 02SS02
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>990799-17</u>
Sample wt/vol: 1000 (g/mL) ML	Lab File ID: <u>DW987</u>
evel: (low/med) <u>LOW</u>	Date Received: <u>09/11/99</u>
Moisture: decanted: (Y/N) N	Date Extracted: <u>09/15/99</u>
Concentrated Extract Volume:1000(uL)	Date Analyzed: 09/23/99
njection Volume: <u>2.0</u> (uL)	Dilution Factor:1.0
	CONCENTRATION UNITS: ug/L or ug/Kg) UG/L Q
99-09-2	10

100-MW-003-01

La Name: CEIMIC CORP Contract: TETRA	,	0-MW-003-0
Lab Code: CEIMIC Case No.: CTO086 SAS No.:	SDG No.:	<u>02SS02</u>
Matrix: (soil/water) WATER Lab Sa	ample ID: <u>990</u>	799-18
Sample wt/vol: 1000 (g/mL) ML Lab Fi	ile ID: <u>DW9</u>	98
Level: (low/med) LOW Date F	Received: 09/	11/99
% Moisture: decanted: (Y/N) N Date B	Extracted: 09/	15/99
Concentrated Extract Volume: 1000 (uL) Date F	Analyzed: <u>09/</u>	23/99
Injection Volume: 2.0(uL) Diluti	ion Factor:	1.0
GPC Cleanup: (Y/N) N pH:	/Kg) <u>UG/L</u> 5 5 5 5 5 5	Q U U U U U
95-50-11, 2-Dichlorobenzene 95-48-72-Methylphenol 108-60-12, 2'-oxybis (1-Chloropropane) 106-44-54-Methylphenol 621-64-7N-Nitroso-Di-n-Propylamine 67-72-1Hexachloroethane 98-95-3Nitrobenzene 78-59-1Isophorone 88-75-52-Nitrophenol 105-67-92, 4-Dimethylphenol 65-85-0Benzoic Acid 111-91-1	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	מממממממממממממממממממממ
2,0 211111100014010		

Lab Name: CEIMIC COR	Contract	: TETRA_TECH_	
Lab Code: <u>CEIMIC</u> (Case No.: <u>CTO086</u> SAS No.	: SDG	No.: <u>025502</u>
Matrix: (soil/water)	WATER	Lab Sample ID:	990799-18
Sample wt/vol:	1000 (g/mL) ML	Lab File ID:	DW998
Level: (low/med)	LOW	Date Received:	09/11/99
% Moisture:	decanted: (Y/N) N	Date Extracted:	09/15/99
Concentrated Extract	Volume: 1000 (uL)	Date Analyzed:	09/23/99
Injection Volume:	2.0(uL)	Dilution Factor	:1.0

GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q

99-09-23-Nitroaniline	10	U
83-32-9Acenaphthene	5	lu l
51-28-52,4-Dinitrophenol	10	ן ט
100-02-74-Nitrophenol	10	U
132-64-9Dibenzofuran	5	lu l
121-14-22,4-Dinitrotoluene	5	lu l
84-66-2Diethylphthalate	5	Ū
7005-72-34-Chlorophenyl-phenylether	5	Ū
86-73-7Fluorene	5	lu l
100-01-64-Nitroaniline	10	Ū
534-52-14,6-Dinitro-2-Methylphenol	10	lu l
86-30-6N-Nitrosodiphenylamine (1)	5	U I
101-55-34-Bromophenyl-phenylether	5	υ
118-74-1Hexachlorobenzene	5	lu l
87-86-5Pentachlorophenol	10	Ü
85-01-8Phenanthrene	5	υ
120-12-7Anthracene	5	Ū
86-74-8Carbazole	5	Ü
84-74-2Di-n-Butylphthalate	5	Ü
206-44-0Fluoranthene	5	Ü
129-00-0Pyrene	5	U
85-68-7Butylbenzylphthalate	5	טן
91-94-13,3'-Dichlorobenzidine	5	U
56-55-3Benzo(a) Anthracene	5	Ü
	5	ט
218-01-9Chrysene	5	1 -
117-81-7bis(2-Ethylhexyl)Phthalate		U
117-84-0Di-n-Octyl Phthalate	5	U
205-99-2Benzo(b) Fluoranthene	5	Ŭ
207-08-9Benzo(k) Fluoranthene	5	U
50-32-8Benzo (a) Pyrene	5	Ŭ
193-39-5Indeno(1,2,3-cd)Pyrene	5	U
53-70-3Dibenzo(a,h)Anthracene	5	מ
191-24-2Benzo(g,h,i)Perylene	5	ן ט
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b Name: <u>CEIMIC CORP</u>	,	Contract: <u>TE</u>	ייים דברט	10	0 - WW - 0 0	4 - 0
			,			
b Code: <u>CEIMIC</u> Cas	se No.: <u>CTO086</u>	SAS No.:	SDG	No.:	<u>02SS02</u>	
trix: (soil/water) <u>WA</u>	ATER	Lab	Sample ID:	990	799-20	
mple wt/vol: 10	000 (g/mL) ML	Lab	File ID:	DX0	00	
vel: (low/med) <u>LC</u>	WC	Dat	te Received:	09/	11/99	
Moisture: de	ecanted: (Y/N) N	Dat	te Extracted:	09/:	15/99	
ncentrated Extract Vo						
jection Volume:	2.0 (uL)	Dil	ution Factor	:	1.0	
C Cleanup: (Y/N) <u>N</u> CAS NO.			TION UNITS:		Q	
108-95-2 111-44-4 95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 106-44-5 621-64-7 98-95-3 98-95-3 105-67-9 111-91-1 120-83-2 120-83-2 120-83-2 120-83-2 120-83-2 120-83-2 120-83-2 91-20-3 120-83-2 91-20-3 91-57-6 91-57-6 91-57-6 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	bis (2-Chloroethy 2-Chlorophenol 1,3-Dichlorobens 1,4-Dichlorobens Benzyl Alcohol 1,2-Dichlorobens 2-Methylphenol 2,2'-oxybis (1-Ch 4-Methylphenol N-Nitroso-Di-n-Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol 2,4-Dimethylphenol 2,4-Dichlorophenol 2,4-Trichloroethane 1,2,4-Trichloroethane 1,2,4-Trichloroethane 4-Chloroaniline Hexachlorobutadi 4-Chloro-3-Methy 2-Methylnaphthane 4-Chloro-3-Methy 2-Methylnaphthane 2,4,5-Trichloroethane 2,4,5-Trichloroethane 2-Nitroaniline Dimethyl Phthane Dimethyl Phthane Dimethyl Phthane	zene zene zene hloropropane Propylamine e nol oxy) Methane nol oenzene iene ylphenol lene pentadiene phenol lene phenol lene		55555555555555555555555555555555555555	מממממממממממממממממממממממממממממממממממממממ	

100-MW-004-01

Lab Name: <u>CEIMIC COR</u>	P	Contract: <u>TETRA</u>	TECH	100-MW-	004-0
Lab Code: <u>CEIMIC</u>	Case No.: <u>CT0086</u>	SAS No.:	SDG N	io.: <u>02SS</u>	02
Matrix: (soil/water)	WATER	Lab Sa	mple ID:	990799-2	!0
Sample wt/vol:	1000 (g/mL) ML	Lab Fi	le ID:	DX000	
Level: (low/med)	LOW	Date R	eceived:	09/11/99	<u>)</u>
% Moisture:	decanted: (Y/N) N	Date E	xtracted:	09/15/99	<u>,</u>
Concentrated Extract	Volume:1000(uL) Date A	nalyzed:	09/23/99	<u>)</u>
Injection Volume:		Diluti	on Factor:	1.	0
GPC Cleanup: - (Y/N)	<u>N</u> pH:	CONCENSED AS A			
CAS NO.	COMPOUND	CONCENTRATIO		Q	
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 85-01-8 120-12-7 86-74-8 120-12-7 86-74-8 206-44-0 129-00-0 85-68-7 218-01-9 117-81-7 117-84-0 205-99-2 207-08-9 50-32-8 53-70-3	4-Nitroaniline4,6-Dinitro-2-MN-Nitrosodiphen4-Bromophenyl-pHexachlorobenzePentachlorophenPhenanthreneAnthraceneCarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphth3,3'-DichlorobeBenzo(a)Anthrac	ene e phenylether ethylphenol ylamine (1) henylether ne ol late alate nzidine ene cl) Phthalate alate thene cthene chene			

100-MW-DD-01

ab .me: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 atrix: (soil/water) WATER Lab Sample ID: 990799-19 ample wt/vol: 1000 (g/mL) MLLab File ID: DW999 evel: (low/med) LOW Date Received: 09/11/99 Moisture: decanted: (Y/N) N Date Extracted: 09/15/99 oncentrated Extract Volume: ____1000(uL) Date Analyzed: 09/23/99 njection Volume: 2.0(uL) Dilution Factor: ____1.0 PC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or ug/Kg) UG/L0 108-95-2----Phenol U 111-44-4-----bis(2-Chloroethyl)Ether 5 U 95-57-8-----2-Chlorophenol 5 U · 541-73-1-----1,3-Dichlorobenzene 5 U 5 106-46-7-----1,4-Dichlorobenzene Ū 5 100-51-6-----Benzyl Alcohol U 5 95-50-1----1,2-Dichlorobenzene U 5 95-48-7----2-Methylphenol Ü 108-60-1-----2,2'-oxybis(1-Chloropropane) 5 U 106-44-5-----4-Methylphenol U 621-64-7-----N-Nitroso-Di-n-Propylamine 5 U 5 67-72-1------Hexachloroethane U 5 98-95-3-----Nitrobenzene U 5 78-59-1-----Isophorone U 5 U 88-75-5----2-Nitrophenol 5 U 105-67-9-----2,4-Dimethylphenol 5 65-85-0-----Benzoic Acid U 111-91-1-----bis(2-Chloroethoxy)Methane 5 Ū 5 120-83-2----2,4-Dichlorophenol U 5 120-82-1----1,2,4-Trichlorobenzene Ū 91-20-3-----Naphthalene 5 U 5 106-47-8-----4-Chloroaniline U 5 87-68-3-----Hexachlorobutadiene U 59-50-7----4-Chloro-3-Methylphenol 5 U 5 91-57-6----2-Methylnaphthalene U 77-47-4-----Hexachlorocyclopentadiene 5 U 88-06-2----2,4,6-Trichlorophenol 5 U 95-95-4-----2,4,5-Trichlorophenol U 10 91-58-7----2-Chloronaphthalene 5 U 88-74-4----2-Nitroaniline 10 U 131-11-3-----Dimethyl Phthalate 5 U 5 208-96-8-----Acenaphthylene U 606-20-2----2,6-Dinitrotoluene 5 U

100-MW-DD-01

Lab Name: CEIMIC CORE)	Contract: TETR	A_TECH	100.	
Lab Code: CEIMIC (Case No.: CTO086	SAS No.:	SDG	No.: (<u>028802</u>
Matrix: (soil/water)	WATER	Lab S	ample ID:	99079	99-19
Sample wt/vol:	1000 (g/mL) ML	_ Lab F	ile ID:	DW999	9
Level: (low/med)	LOW	Date 1	Received:	09/1	1/99
% Moisture:	decanted: (Y/N) N	<u>N</u> Date	Extracted:	09/19	5/99
Concentrated Extract	Volume:1000	(uL) Date.	Analyzed:	09/2	3/99
Injection Volume:	<u>2.0</u> (uL)	Dilut	ion Factor	: <u> </u>	1.0
GPC Cleanup: (Y/N)	<u>N</u> pH:	CONCENTENT	011 IDILEE		
CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug		-	. Q
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 85-01-8 85-01-8 120-12-7 86-74-8 206-44-0 129-00-0 85-68-7 218-01-9 117-81-7 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5	4-Nitroaniline4,6-Dinitro-2-N4,6-Dinitro-2-N4-Bromophenyl-pHexachlorobenzePentachloropherPhenanthreneCarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphtha3,3'-DichlorobeBenzo(a)Anthrace	mol		5 10 10 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	

100-SS-01

La Vame: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-05 Sample wt/vol: 30.3 (g/mL) GLab File ID: IX022 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: <u>12</u> decanted: (Y/N) N Date Extracted: 09/14/99 Concentrated Extract Volume: _____500(uL) Date Analyzed: 09/29/99 Injection Volume: 2.0(uL) Dilution Factor: ____10.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 108-95-2----Phenol 1800 U 111-44-4-----bis(2-Chloroethyl)Ether 1800 U 95-57-8----2-Chlorophenol 1800 U 541-73-1----1,3-Dichlorobenzene U 1800 106-46-7----1,4-Dichlorobenzene____ U 1800 100-51-6-----Benzyl Alcohol U 1800 95-50-1----1,2-Dichlorobenzene U 1800 95-48-7----2-Methylphenol 1800 U 108-60-1----2,2'-oxybis(1-Chloropropane) U 1800 106-44-5----4-Methylphenol 1800 U 621-64-7----N-Nitroso-Di-n-Propylamine U 1800 67-72-1-----Hexachloroethane U 1800 98-95-3-----Nitrobenzene 1800 U 78-59-1-----Isophorone 1800 U 88-75-5----2-Nitrophenol U 1800 105-67-9----2,4-Dimethylphenol____ U 1800 65-85-0-----Benzoic Acid 3700 U 111-91-1-----bis(2-Chloroethoxy)Methane 1800 U 120-83-2----2,4-Dichlorophenol U 1800 120-82-1----1,2,4-Trichlorobenzene U 1800 91-20-3-----Naphthalene 1800 U 106-47-8-----4-Chloroaniline 1800 U 87-68-3-----Hexachlorobutadiene U 1800 59-50-7----4-Chloro-3-Methylphenol 1800 U 91-57-6----2-Methylnaphthalene U 1800 77-47-4-----Hexachlorocyclopentadiene 1800 U 88-06-2----2,4,6-Trichlorophenol 1800 U 95-95-4----2,4,5-Trichlorophenol 3700 U 91-58-7----2-Chloronaphthalene 1800 U 88-74-4----2-Nitroaniline 3700 U 131-11-3-----Dimethyl Phthalate U 1800 U 208-96-8-----Acenaphthylene 1800 606-20-2----2,6-Dinitrotoluene U 1800

100-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX022

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

99-09-23-Nitroaniline 83-32-9Acenaphthene 51-28-52,4-Dinitrophenol 100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22,4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0	3700 1800 3700 3700 1800 1800 1800 1800 3700 3700	ם ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט
83-32-9	1800 3700 3700 1800 1800 1800 1800 3700 3700	ט ט ט ט ט
51-28-52,4-Dinitrophenol 100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22,4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0	3700 3700 1800 1800 1800 1800 3700 3700	ם ם ם ם
100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22,4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01=9=	1800 1800 1800 1800 1800 3700	ם מ מ
132-64-9Dibenzofuran 121-14-22,4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a)Anthracene 218-01=9=	1800 1800 1800 1800 3700	U U U
84-66-2	1800 1800 1800 3700 3700	U U
84-66-2	1800 1800 3700 3700	U
7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01-9	1800 3700 3700	i
86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01=9=	3700 3700	l r r
534-52-14,6-Dinitro-2-Methylphenol 86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01-9	3700	10
86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7		U
86-30-6N-Nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01=9=	1800	U
101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) Anthracene 218-01=9=Chrysene 117-81-7bis(2-Ethylhexyl) Phthalate	1000	U
118-74-1	1800	ט
85-01-8	1800	ט
120-12-7Anthracene 86-74-8Carbazole 84-74-2	3700	U
120-12-7Anthracene 86-74-8Carbazole 84-74-2	1800	U
84-74-2	1800	U
206-44-0Fluoranthene 129-00-0	1800	U
206-44-0Fluoranthene 129-00-0	1800	ט
129-00-0	1800	U
85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a)Anthracene 218-01=9=Chrysene 117-81-7bis(2-Ethylhexyl)Phthalate	1800	U
91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a)Anthracene 218-01=9=Chrysene 117-81-7bis(2-Ethylhexyl)Phthalate	1800	U
56-55-3Benzo(a) Anthracene 218-01-9Chrysene 117-81-7bis(2-Ethylhexyl) Phthalate	1800	ט
218-01=9=Chrysene 117-81-7bis(2-Ethylhexyl)Phthalate	1800	U
117-81-7bis(2-Ethylhexyl)Phthalate	1800	Ū
	1500	J
117-84-0Di-n-Octyl Phthalate	1800	U
205-99-2Benzo(b) Fluoranthene	1800	ט
207-08-9Benzo(k) Fluoranthene	1800	U
50-32-8Benzo(a) Pyrene	1800	ט
193-39-5Indeno(1,2,3-cd)Pyrene	1800	ט
53-70-3Dibenzo(a,h)Anthracene	7.000	U
191-24-2Benzo(g,h,i) Perylene	1800	ט

100-SS-02

La ame: <u>CEIMIC CORP</u> Contract: <u>TETRA TECH</u> Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-04 Sample wt/vol: 30.2 (g/mL) GLab File ID: JY711 Level: (low/med) LOW____ Date Received: 09/09/99 % Moisture: <u>17</u> decanted: (Y/N) <u>N</u> Date Extracted: 09/14/99 Concentrated Extract Volume: _____500(uL) Date Analyzed: 09/30/99 Injection Volume: 2.0(uL) Dilution Factor: 5.0 GPC Cleanup: (Y/N) Y pH: CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 0 108-95-2----Phenol 960 IJ 111-44-4-----bis(2-Chloroethyl)Ether 960 U 95-57-8----2-Chlorophenol 960 U 541-73-1----1,3-Dichlorobenzene____ 960 U 106-46-7----1,4-Dichlorobenzene_____ U 960 100-51-6-----Benzyl Alcohol 960 U 95-50-1----1,2-Dichlorobenzene 960 U 95-48-7----2-Methylphenol 960 U 108-60-1----2,2'-oxybis(1-Chloropropane) 960 U 106-44-5----4-Methylphenol 960 U 621-64-7----N-Nitroso-Di-n-Propylamine 960 U 67-72-1-----Hexachloroethane 960 U 98-95-3-----Nitrobenzene 960 U 78-59-1-----Isophorone 960 U 88-75-5----2-Nitrophenol 960 U 105-67-9----2,4-Dimethylphenol_____ U 960 65-85-0-----Benzoic Acid 2000 U 111-91-1-----bis(2-Chloroethoxy)Methane 960 U 120-83-2----2,4-Dichlorophenol 960 U 120-82-1----1,2,4-Trichlorobenzene 960 U 91-20-3-----Naphthalene 960 U 106-47-8----4-Chloroaniline 960 U 87-68-3-----Hexachlorobutadiene U 960 59-50-7----4-Chloro-3-Methylphenol 960 U 91-57-6----2-Methylnaphthalene 960 U 77-47-4-----Hexachlorocyclopentadiene 960 U 88-06-2----2,4,6-Trichlorophenol 960 U 95-95-4----2,4,5-Trichlorophenol U 2000 91-58-7----2-Chloronaphthalene 960 U 88-74-4----2-Nitroaniline 2000 U 131-11-3-----Dimethyl Phthalate 960 U 208-96-8-----Acenaphthylene 960 U 606-20-2----2,6-Dinitrotoluene 960 U

100-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-04 Sample wt/vol: <u>30.2</u> (g/mL) <u>G</u> Lab File ID: JY711 Level: (low/med) LOW Date Received: 09/09/99 8 Moisture: <u>17</u> decanted: (Y/N) <u>N</u> Date Extracted: 09/14/99 Concentrated Extract Volume: ____500(uL) Date Analyzed: 09/30/99 Injection Volume: __2.0(uL) Dilution Factor: _____5.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 99-09-2----3-Nitroaniline____ U 2000 83-32-9-----Acenaphthene 960 U 51-28-5----2,4-Dinitrophenol____ 2000 U 100-02-7----4-Nitrophenol_____ U 2000 132-64-9------Dibenzofuran 960 U 121-14-2----2,4-Dinitrotoluene____ 960 U 84-66-2-----Diethylphthalate 960 U U 7005-72-3----4-Chlorophenyl-phenylether 960 86-73-7-----Fluorene 960 U 100-01-6-----4-Nitroaniline U 2000 534-52-1-----4,6-Dinitro-2-Methylphenol 2000 U 86-30-6----Nitrosodiphenylamine (1) U 960 101-55-3----4-Bromophenyl-phenylether 960 U 118-74-1-----Hexachlorobenzene 960 U U 87-86-5----Pentachlorophenol 2000 85-01-8-----Phenanthrene U 960 120-12-7-----Anthracene 960 U 86-74-8-----Carbazole 960 U 84-74-2-----Di-n-Butylphthalate 960 U 206-44-0-----Fluoranthene____ U 960 129-00-0-----Pyrene U 960 85-68-7-----Butylbenzylphthalate U 960 91-94-1----3,3'-Dichlorobenzidine 960 U 56-55-3-----Benzo(a)Anthracene 960 U U 218-01-9-----Chrysene 960 117-81-7-----bis(2-Ethylhexyl)Phthalate 960 U 117-84-0-----Di-n-Octyl Phthalate 960 U 205-99-2----Benzo(b) Fluoranthene U 960 207-08-9-----Benzo(k)Fluoranthene U 960 U 50-32-8-----Benzo(a) Pyrene 960 193-39-5-----Indeno(1,2,3-cd)Pyrene 960 U 53-70-3-----Dibenzo(a,h)Anthracene 960 U 191-24-2-----Benzo(g,h,i) Perylene U 960

100-SS-03

La' ame: CEIMIC CORP Contract: TETRA TECH	
Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02	
Matrix: (soil/water) <u>SOIL</u> Lab Sample ID: <u>990799-07</u>	
Sample wt/vol: $30.3 \text{ (g/mL) } G$ Lab File ID: $IX017$	
Level: (low/med) LOW Date Received: 09/09/99	
Moisture: 6 decanted: (Y/N) N Date Extracted: 09/14/99	
Concentrated Extract Volume: 500(uL) Date Analyzed: 09/28/99	
Injection Volume: 2.0(uL) Dilution Factor: 1.0	
CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q	
108-95-2Phenol	

100-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTOO86 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) <u>SOIL</u> Lab **Sample ID: 990799-07** Sample wt/vol: 30.3 (q/mL) GLab File ID: IX017 Date Received: 09/09/99 Level: (low/med) LOW % Moisture: <u>6</u> decanted: (Y/N) <u>N</u> Date Extracted: 09/14/99 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99 Injection Volume: 2.0(uL) Dilution Factor: _____1.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 99-09-2----3-Nitroaniline_____ 350 U 83-32-9-----Acenaphthene 170 U 51-28-5----2,4-Dinitrophenol U 350 100-02-7----4-Nitrophenol_____ 350 U U 132-64-9-----Dibenzofuran 170 121-14-2----2,4-Dinitrotoluene____ 170 U U 84-66-2-----Diethylphthalate 170 7005-72-3----4-Chlorophenyl-phenylether Ŭ. 170 170 U U 100-01-6-----4-Nitroaniline 350 534-52-1----4,6-Dinitro-2-Methylphenol____ U 350 86-30-6----N-Nitrosodiphenylamine (1) 170 U 101-55-3----4-Bromophenyl-phenylether____ 170 U 118-74-1-----Hexachlorobenzene____ 170 U 87-86-5----Pentachlorophenol 350 U 85-01-8-----Phenanthrene____ U 170 120-12-7-----Anthracene 170 U 86-74-8-----Carbazole 170 U 84-74-2-----Di-n-Butylphthalate 48 J 206-44-0-----Fluoranthene_____ U 170 129-00-0-----Pyrene 170 U 85-68-7-----Butylbenzylphthalate 170 U 91-94-1----3,3'-Dichlorobenzidine 170 U 56-55-3-----Benzo(a)Anthracene 170 U 218-01-9-----Chrysene 170 U 117-81-7-----bis(2-Ethylhexyl)Phthalate 40 J 117-84-0-----Di-n-Octyl Phthalate 170 U 205-99-2----Benzo(b) Fluoranthene 170 U 207-08-9-----Benzo(k)Fluoranthene 170 U U 50-32-8-----Benzo(a) Pyrene 170 193-39-5-----Indeno(1,2,3-cd)Pyrene U 170 53-70-3-----Dibenzo(a,h)Anthracene 170 U U 191-24-2----Benzo(g,h,i)Perylene 170

Contract: TETRA TECH

Lab Name: <u>CEIMIC COR</u>	<u>P</u> C	Contract: <u>TETRA_TECH</u>	.	·
Lab Code: CEIMIC	Case No.: CTO086	SAS No.:S	DG No.:	025502
Matrix: (soil/water)	SOIL	Lab Sample I	D: <u>990</u>	799-08
Sample wt/vol:	<u>30.4</u> (g/mL) <u>G</u>	Lab File ID:	IXO	18
Level: (low/med)	LOW	Date Receive	d: <u>09/</u>	09/99
% Moisture: 14	decanted: (Y/N) N	Date Extract	ed: <u>09/</u>	14/99
Concentrated Extract	Volume:500(u	L) Date Analyze	d: <u>09/</u>	28/99
Injection Volume:	2.0(uL)	Dilution Fac	tor:	1.0
GPC Cleanup: (Y/N) CAS NO.	Y .pH:	CONCENTRATION UNIT		Q
95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 98-95-3 78-59-1 88-75-5 111-91-1 120-83-2 120-83-2 120-82-1 91-20-3 91-20-3 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	bis(2-Chloroethy2-Chlorophenol1,3-Dichlorobenz1,4-DichlorobenzBenzyl Alcohol1,2-Dichlorobenz2-Methylphenol2,2'-oxybis(1-Ch4-MethylphenolN-Nitroso-Di-n-PHexachloroethane	ene ene loropropane) ropylamine lol exy) Methane ol enzene ene rlphenol ene ene chenol	180 180 180 180 180 180 180 180	ממממממממממממממממממממממממממ

100-SS-04

Lab Name: <u>CEIMIC CORP</u>	Contract:	TETRA TECH	100	-55-04
Lab Code: <u>CEIMIC</u> Case	No.: CTOO86 SAS No.:	SDG	No.:	<u>02SS02</u>
Matrix: (soil/water) <u>SOI</u>	<u>IL</u>	Lab Sample ID:	9907	99-08
Sample wt/vol: 30).4 (g/mL) <u>G</u>	Lab File ID:	<u> IX01</u>	8
Level: (low/med) <u>LOW</u>	٧	Date Received:	09/0	9/99
% Moisture: <u>14</u> dec	canted: (Y/N) N	Date Extracted:	09/1	4/99
Concentrated Extract Vol	lume: <u>500</u> (uL)	Date Analyzed:	09/2	8/99
Injection Volume: 2	2.0(uL)	Dilution Factor	:	1.0
GPC Cleanup: (Y/N) Y				
CAS NO. C	CONCEN COMPOUND (ug/L	NTRATION UNITS: or ug/Kg) <u>UG/K</u> O	3	Q
83-32-9A 51-28-5	2,4-Dinitrophenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,4-Dinitrotoluene 2,4-Dinitrotoluene 3,4-Dinitrotoluene 3,4-Dinitrotoluene 4,4-Dinitrotoluene 5,4-Dinitrotoluene 5,6-Dinitro-2-Methylphen 6,6-Dinitro-2-Methylphen 6,	ner in	180 180 180 180 180 180 180 180 180 180	מממממנים מממנים ממנים ממממממט ממט ממט מ

102-MW-003-01

L Vame: CEIMIC COR	P	Contract: <u>TETR</u>	1_TECH	102	-MW-003-0:
Lab Code: <u>CEIMIC</u>	Case No.: CTO086	SAS No.:	SDG	No.:	<u>02SS02</u>
Matrix: (soil/water)	WATER	Lab Sa	ample ID:	9907	99-11
Sample wt/vol:	1000 (g/mL) ML	Lab Fi	ile ID:	DW98	5
Level: (low/med)	LOW	Date F	Received:	09/1	1/99
% Moisture:	decanted: (Y/N) N	Date F	Extracted:	09/1	5/99
Concentrated Extract	Volume:1000(uL) Date A	Analyzed:	09/2	3/99
Injection Volume:		Diluti	ion Factor	:	1.0
95-57-8	COMPOUND Phenolbis(2-Chloroethy2-Chlorophenol1,3-Dichlorobeny1,4-DichlorobenyBenzyl Alcohol1,2-Dichlorobeny2-Methylphenol2,2'-oxybis(1-ClumethylphenolN-Nitroso-Di-n-lHexachloroethaneNitrobenzeneIsophorone2,4-Dimethylphenol2,4-DimethylphenolBenzoic Acidbis(2-Chloroetho	zene zene zene zene hloropropane) Propylamine e nol oxy) Methane		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Q U U U U U U U U U U U U U U U U U U U
120-82-1 91-20-3 106-47-8 87-68-3 59-50-7 91-57-6 77-47-4 88-06-2 91-58-7 91-58-7 208-96-8	2,4-Dichloropher1,2,4-Trichloron1,2,4-Trichloron1,2,4-Trichloron4-Chloroaniline4-Chloro-3-Meth2-Methylnaphtha1,4,6-Trichloron2,4,5-Trichloron2-Chloronaphtha2-NitroanilineDimethyl PhthalaAcenaphthylene2,6-Dinitrotolue	iene ylphenol lene pentadiene phenol phenol lene		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ט ט ט ט ט ט ט ט ט ט

Lab Name: CEIMIC CORP Contract	: TETRA_TECH	102-MW-003-0
Lab Code: CEIMIC Case No.: CTO086 SAS No.	: SDG	No.: <u>02SS02</u>
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID:	990799-11
Sample wt/vol: 1000 (g/mL) ML	Lab File ID:	DW985
Level: (low/med) <u>LOW</u>	Date Received:	09/11/99
% Moisture: decanted: (Y/N) N	Date Extracted	: 09/15/99
Concentrated Extract Volume:1000(uL)	Date Analyzed:	09/23/99
Injection Volume: 2.0(uL)	Dilution Factor	r: <u>1.0</u>
	ENTRATION UNITS: Lor ug/Kg) <u>UG/L</u>	. Q
99-09-23-Nitroaniline 83-32-9Acenaphthene 51-28-52,4-Dinitrophenol 100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22,4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylet 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14,6-Dinitro-2-Methylphe 86-30-6N-Nitrosodiphenylamine 101-55-34-Bromophenyl-phenyleth 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2	enol (1) her	10

102-MW-004-01

L Name: CEIMIC CORP Contract: TETRA	102-MW-004-0 A_TECH
Lab Code: CEIMIC Case No.: CTOO86 SAS No.:	SDG No.: 025502
Matrix: (soil/water) <u>WATER</u> Lab Sa	ample ID: <u>990799-10</u>
Sample wt/vol: 1000 (g/mL) ML Lab Fi	ile ID: <u>DW984</u>
Level: (low/med) LOW Date F	Received: <u>09/11/99</u>
% Moisture: decanted: (Y/N) N Date B	Extracted: <u>09/15/99</u>
Concentrated Extract Volume:1000(uL) Date A	Analyzed: <u>09/23/99</u>
Injection Volume: 2.0(uL) Diluti	ion Factor: 1.0
CONCENTRATION COMPOUND CONCENTRATION CAS NO. COMPOUND CONCENTRATION CONCENTRATION CONCENTRATION COMPOUND Cug/L or ug/L	
606-20-22,6-Dinitrotoluene	5 0

102-MW-004-01

Lab Nai	me: <u>CEIMIC COR</u>	P	Contract: TETR	LA_TECH	102	-MW-004-0
Lab Co	de: <u>CEIMIC</u>	Case No.: <u>CTO086</u>	SAS No.:	SDG	No.:	<u>02SS02</u>
Matrix	: (soil/water)	WATER_	Lab S	Sample ID:	9907	99-10
Sample	wt/vol:	1000 (g/mL) <u>ML</u>	_ Lab F	File ID:	DW98	4
Level:	(low/med)	LOW	Date	Received:	09/1	1/99
% Mois	ture:	decanted: (Y/N) [<u>N</u> Date	Extracted:	09/1	5/99
Concent	trated Extract	Volume:1000	(uL) Date	Analyzed:	09/2	3/99
Inject	ion Volume:	2.0(uL)	Dilut	ion Factor	: <u> </u>	1.0
GPC Cle	99-09-2 83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 118-74-1 87-86-5 85-01-8 120-12-7 86-74-8 84-74-2	3-NitroanilineAcenaphthene2,4-Dinitropher4-NitrophenolDibenzofuran2,4-DinitrotoluDiethylphthalat4-ChlorophenylFluorene4-Nitroaniline4,6-Dinitro-2-NN-Nitrosodipher4-Bromophenyl-pHexachlorobenzePentachloropherPhenanthreneAnthraceneCarbazoleDi-n-Butylphtha	mol tephenylether Methylphenol nylamine (1) phenylether ene nol		10 5 10 10 5 5 5 10 10 5 5	Q
	91-94-1 56-55-3 218-01-9 117-81-7 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3	Butylbenzylphth3,3'-DichlorobeBenzo(a)AnthracChrysenebis(2-EthylhexyDi-n-Octyl PhthBenzo(b)FluoranBenzo(k)FluoranBenzo(a)PyreneIndeno(1,2,3-cdDibenzo(a,h)AndBenzo(g,h,i)Pen	enzidine cene yl)Phthalate halate nthene nthene d)Pyrene thracene		5 5 5 3 5 5 5 5 5 5	U U U BJ U U U U U

102-SS-01

La Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-02 Sample wt/vol: 30.3 (g/mL) GLab File ID: <u>JY648</u> Level: (low/med) LOW Date Received: <u>09/09/99</u> % Moisture: 13 decanted: (Y/N) N Date Extracted: 09/14/99 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99 Injection Volume: 2.0(uL) Dilution Factor: 1.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 0 108-95-2----Phenol 180 U 111-44-4-----bis(2-Chloroethyl)Ether 180 U 95-57-8-----2-Chlorophenol 180 U 541-73-1-----1,3-Dichlorobenzene 180 U 106-46-7-----1,4-Dichlorobenzene U 180 100-51-6-----Benzyl Alcohol U 180 95-50-1----1,2-Dichlorobenzene U 180 95-48-7----2-Methylphenol 180 U 108-60-1----2,2'-oxybis(1-Chloropropane) 180 U 106-44-5----4-Methylphenol 180 U 621-64-7----N-Nitroso-Di-n-Propylamine 180 U 67-72-1------Hexachloroethane 180 U 98-95-3-----Nitrobenzene 180 U 78-59-1-----Isophorone 180 U 88-75-5----2-Nitrophenol U 180 105-67-9-----2,4-Dimethylphenol_____ 180 U 65-85-0-----Benzoic Acid 380 U 111-91-1-----bis(2-Chloroethoxy)Methane 180 U 120-83-2----2,4-Dichlorophenol 180 U 120-82-1----1, 2, 4-Trichlorobenzene 180 U 91-20-3-----Naphthalene 180 IJ 106-47-8-----4-Chloroaniline 180 U 87-68-3-----Hexachlorobutadiene 180 U 59-50-7----4-Chloro-3-Methylphenol U 180 91-57-6----2-Methylnaphthalene 180 U 77-47-4-----Hexachlorocyclopentadiene 180 IJ 88-06-2----2,4,6-Trichlorophenol 180 U 95-95-4----2,4,5-Trichlorophenol U 380 91-58-7----2-Chloronaphthalene U 180 88-74-4----2-Nitroaniline 380 U 131-11-3-----Dimethyl Phthalate 180 U 208-96-8-----Acenaphthylene 180 U 606-20-2----2,6-Dinitrotoluene 180 U

102-SS-01

Dilution Factor: _____1.0

Lab Name: CEIMIC CORE	Contract	: TETRA TECH	
Lab Code: <u>CEIMIC</u> (Case No.: CTOO86 SAS No.	:SDG I	No.: <u>02SS02</u>
Matrix: (soil/water)	SOIL	Lab Sample ID:	990799-02
Sample wt/vol:	30.3 (g/mL) G	Lab File ID:	JY648
Level: (low/med)	LOW	Date Received:	09/09/99
% Moisture: 13	decanted: (Y/N) N	Date Extracted:	09/14/99
Concentrated Extract	Volume:500(uL)	Date Analyzed:	09/27/99

GPC Cleanup: (Y/N) Y pH: ____

Injection Volume: 2.0(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

		, ,
99-09-23-Nitroaniline	380	U
83-32-9Acenaphthene	180	lu l
51-28-52,4-Dinitrophenol	380	Ū
100-02-74-Nitrophenol	380	U
132-64-9Dibenzofuran	180	U
121-14-22,4-Dinitrotoluene	180	U
84-66-2Diethylphthalate	180	ا تا
7005-72-34-Chlorophenyl-phenylether	180	lu l
86-73-7Fluorene	180	ן ט
100-01-64-Nitroaniline	380	lu l
534-52-14,6-Dinitro-2-Methylphenol	380	Ü
86-30-6N-Nitrosodiphenylamine (1)	180	lu l
101-55-34-Bromophenyl-phenylether	180	U
118-74-1Hexachlorobenzene	180	Ü
87-86-5Pentachlorophenol	380	tī
85-01-8Phenanthrene	180	ן מ
120-12-7Anthracene	180	Ü
86-74-8Carbazole	180	ט
84-74-2Di-n-Butylphthalate	77	J
· · · · · · · · · · · · · · · · · · ·	48	J
206-44-0Fluoranthene 129-00-0Pyrene	40	J
85-68-7Butylbenzylphthalate	180	ט
91-94-13,3'-Dichlorobenzidine	180	ט
	l .	ט
56-55-3Benzo(a)Anthracene	180	1 - 1
218-01-9Chrysene	180	ַ
117-81-7bis(2-Ethylhexyl)Phthalate	71	J
117-84-0Di-n-Octyl Phthalate	180	U
205-99-2Benzo(b) Fluoranthene	180	U
207-08-9Benzo(k)Fluoranthene	180	U
50-32-8Benzo(a) Pyrene	180	U
193-39-5Indeno(1,2,3-cd)Pyrene	180	ן ט
53-70-3Dibenzo(a,h)Anthracene	180	ט
191-24-2Benzo(g,h,i)Perylene	180	ן ט

102-SS-02

La Tame: <u>CEIMIC CORP</u> Contract: <u>TETR</u>	A_TECH	
Lab Code: CEIMIC Case No.: CT0086 SAS No.:	SDG No.	: <u>02SS02</u>
Matrix: (soil/water) <u>SOIL</u> Lab S	Sample ID: 99	0799-01
Sample wt/vol: 30.4 (g/mL) G Lab F	ile ID: <u>J</u>	7694
Level: (low/med) LOW Date	Received: 09	9/09/99
Moisture: <u>12</u> decanted: (Y/N) N Date	Extracted: 09	9/22/99
Concentrated Extract Volume: 500 (uL) Date	Analyzed: 09	9/29/99
Injection Volume: 2.0 (uL) Dilut	ion Factor: _	1.0
GPC Cleanup: (Y/N) Y pH: CONCENTRATI CAS NO. COMPOUND (ug/L or ug		Q
108-95-2Phenol 111-44-4	180 180 180 180 180 180 180 180 180 180	מ מטמטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטט

102-SS-02

	Co	ntract: <u>TETRA</u>		02-SS-02
ab Code: <u>CEIMIC</u> Ca	ase No.: <u>CTO086</u> S	AS No.:	_ SDG No.:	025502
atrix: (soil/water) §	SOIL_	Lab Sam	ple ID: 990	799-01
ample wt/vol:	30.4 (g/mL) <u>G</u>	Lab Fil	e ID: <u>JY</u> 6	594
evel: (low/med) <u>I</u>	OM	Date Re	ceived: 09/	09/99
Moisture: 12	decanted: (Y/N) N	Date Ex	tracted: 09/	22/99
oncentrated Extract V	/olume: <u>500</u> (uL) Date An	alyzed: <u>09</u> /	29/99
njection Volume: _	2.0 (uL)	Dilutio	n Factor:	1.0
99-09-2 83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 87-86-5 85-01-8	-2,4-Dinitrotoluen -Diethylphthalate_ -4-Chlorophenyl-ph -Fluorene_ -4-Nitroaniline_ -4,6-Dinitro-2-Met -N-Nitrosodiphenyl -4-Bromophenyl-phe -Hexachlorobenzene -Pentachlorophenol	e enylether hylphenol amine (1) nylether		טמטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטט
120-12-7 86-74-8 84-74-2 206-44-0 129-00-0 85-68-7 91-94-1	-Anthracene -Carbazole -Di-n-Butylphthala -Fluoranthene -Pyrene -Butylbenzylphthal -3,3'-Dichlorobenz -Benzo(a)Anthracen	ate idine e	180 180 43 180 180 180 180 180	ם ש ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט

CAS NO. COMPOUND

 Lab Name: CEIMIC CORP
 Contract: TETRA TECH
 102-SS-03

 Lab Code: CEIMIC
 Case No.: CTO086
 SAS No.: SDG No.: 02SS02

 Matrix: (soil/water) SOIL
 Lab Sample ID: 990799-13

 Sample wt/vol: 30.3 (g/mL) G
 Lab File ID: IX020

 Level: (low/med) LOW
 Date Received: 09/09/99

 % Moisture: 21 decanted: (Y/N) N
 Date Extracted: 09/14/99

 Concentrated Extract Volume: 500(uL)
 Date Analyzed: 09/29/99

 Injection Volume: 2.0(uL)
 Dilution Factor: 1.0

 GPC Cleanup: (Y/N) Y
 pH: CONCENTRATION UNITS:

(ug/L or ug/Kg) <u>UG/KG</u> Q

108-95-2Phenol	200	U
111-44-4bis(2-Chloroethyl)Ether	200	U
95-57-82-Chlorophenol	200	Ū
541-73-11,3-Dichlorobenzene	200	U
105-46-71,4-Dichlorobenzene	200	U
100-51-6Benzyl Alcohol	200	Ü
95-50-11,2-Dichlorobenzene	200	U
95-48-72-Methylphenol	200	U
108-60-12,2'-oxybis(1-Chloropropane)	200	Ū
106-44-54-Methylphenol	200	Ū
621-64-7N-Nitroso-Di-n-Propylamine	200	Ū
67-72-1Hexachloroethane	200	Ū
98-95-3Nitrobenzene	200	Ū
78-59-1Isophorone	200	Ū
88-75-52-Nitrophenol	200	Ū
105-67-92,4-Dimethylphenol	200	Ū
65-85-0Benzoic Acid	86	Ĵ
111-91-1bis(2-Chloroethoxy)Methane	200	U
120-83-22,4-Dichlorophenol	200	Ū
120-82-11,2,4-Trichlorobenzene	200	Ū
91-20-3Naphthalene	200	Ū
106-47-84-Chloroaniline	200	U
87-68-3Hexachlorobutadiene	200	Ü
59-50-74-Chloro-3-Methylphenol	200	บ
91-57-62-Methylnaphthalene	200	ט
77-47-4Hexachlorocyclopentadiene	200	บ
88-06-22,4,6-Trichlorophenol	200	ט
95-95-42,4,5-Trichlorophenol	47.0	Ü
91-58-72-Chloronaphthalene	200	Ü
88-74-42-Chioronaphcharene	410	บ
131-11-3Dimethyl Phthalate	200	ט
	. !	1
208-96-8Acenaphthylene	200	U
606-2 0-22,6- Dinitrotoluene	200	١٥
	1	1

102-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-13 Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX020 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: _____21 decanted: (Y/N) N ____ Date Extracted: 09/14/99 Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99 Dilution Factor: _____1.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or uq/Kq) <u>UG/KG</u> Q 99-09-2----3-Nitroaniline____ 410 U 83-32-9-----Acenaphthene 200 U 51-28-5----2,4-Dinitrophenol_____ 410 U 100-02-7----4-Nitrophenol_____ U 410 132-64-9-----Dibenzofuran___ 200 U 121-14-2----2,4-Dinitrotoluene____ 200 Ų 84-66-2----Diethylphthalate 200 U 7005-72-3----4-Chlorophenyl-phenylether 200 U 86-73-7-----Fluorene 200 U 100-01-6-----4-Nitroaniline 410 U 534-52-1----4,6-Dinitro-2-Methylphenol 410 U 86-30-6----N-Nitrosodiphenylamine (1) 200 U 101-55-3----4-Bromophenyl-phenylether____ 200 U 118-74-1-----Hexachlorobenzene 200 U 87-86-5----Pentachlorophenol 410 U 85-01-8-----Phenanthrene____ 200 U 120-12-7-----Anthracene_____ 200 U 200 86-74-8-----Carbazole U 84-74-2----Di-n-Butylphthalate_____ 83 J 206-44-0-----Fluoranthene____ 200 U U 129-00-0-----Pyrene 200 U 85-68-7-----Butylbenzylphthalate 200 91-94-1----3,3'-Dichlorobenzidine U 200 56-55-3-----Benzo(a) Anthracene 200 U U 218-01-9------Chrysene 200 117-81-7-----bis(2-Ethylhexyl)Phthalate 680 117-84-0-----Di-n-Octyl Phthalate 200 U 205-99-2----Benzo(b)Fluoranthene____ 200 U 207-08-9-----Benzo(k) Fluoranthene 200 U 50-32-8-----Benzo(a) Pyrene 200 U 193-39-5----Indeno(1,2,3-cd)Pyrene____ U 200 53-70-3-----Dibenzo(a,h)Anthracene 200 U U 191-24-2----Benzo(g,h,i)Perylene 200

Contract: TETRA TECH

I Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Lab Sample ID: 990799-14 Matrix: (soil/water) SOIL Sample wt/vol: 30.4 (g/mL) GLab File ID: IX021 Level: (low/med) LOW___ Date Received: 09/09/99 % Moisture: 8 decanted: (Y/N) N Date Extracted: 09/14/99 Concentrated Extract Volume: _____500(uL) Date Analyzed: <u>09/29/99</u> Dilution Factor: 1.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 108-95-2-----Phenol 170 U 111-44-4-----bis(2-Chloroethyl)Ether 170 U 95-57-8----2-Chlorophenol 170 U 541-73-1----1,3-Dichlorobenzene 170 U 106-46-7-----1,4-Dichlorobenzene 170 U 100-51-6-----Benzyl Alcohol U 170 95-50-1----1,2-Dichlorobenzene 170 U 95-48-7----2-Methylphenol 170 U 108-60-1----2,2'-oxybis(1-Chloropropane) 170 U 106-44-5-----4-Methylphenol 170 U 621-64-7----N-Nitroso-Di-n-Propylamine 170 U 67-72-1-----Hexachloroethane____ 170 IJ 98-95-3-----Nitrobenzene 170 U 78-59-1-----Isophorone 170 U 88-75-5----2-Nitrophenol 170 U 105-67-9-----2,4-Dimethylphenol____ 170 U 65-85-0-----Benzoic Acid U 350 111-91-1-----bis (2-Chloroethoxy) Methane 170 U 120-83-2----2,4-Dichlorophenol 170 U 120-82-1----1,2,4-Trichlorobenzene U 170 91-20-3-----Naphthalene 170 U 106-47-8-----4-Chloroaniline U 170 87-68-3-----Hexachlorobutadiene 170 U 59-50-7----4-Chloro-3-Methylphenol 170 U 91-57-6-----2-Methylnaphthalene 170 U 77-47-4-----Hexachlorocyclopentadiene U 170 88-06-2----2,4,6-Trichlorophenol 170 U 95-95-4----2,4,5-Trichlorophenol 350 U 91-58-7----2-Chloronaphthalene 170 U 88-74-4----2-Nitroaniline 350 U 131-11-3-----Dimethyl Phthalate 170 U 208-96-8-----Acenaphthylene 170 U 606-20-2----2,6-Dinitrotoluene U 170

				102-33-04
Lab	Name:	CEIMIC CORP	Contract: <u>TETRA_TECH</u>	

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) <u>SOIL</u> Lab Sample ID: 990799-14

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX021

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: _____8 decanted: (Y/N) N ____ Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: _____2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS:

> CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u>

	T	
99-09-23-Nitroaniline	350	ט
83-32-9Acenaphthene	170	lυ
51-28-52,4-Dinitrophenol	350	U
100-02-74-Nitrophenol	350	ט
132-64-9Dibenzofuran	170	ט
121-14-22,4-Dinitrotoluene	170	U
84-66-2Diethylphthalate	170	Ū
7005-72-34-Chlorophenyl-phenylether	170	Ü
86-73-7Fluorene	170	Ü
100-01-64-Nitroaniline	350	U
534-52-14,6-Dinitro-2-Methylphenol	350	Ü
86-30-6N-Nitrosodiphenylamine (1)	170	บ
101-55-34-Bromophenyl-phenylether	170	l u
118-74-1Hexachlorobenzene		מ
110-/4-1	350	Ü
87-86-5Pentachlorophenol		Ü
85-01-8Phenanthrene	170	-
120-12-7Anthracene	170	Ü
86-74-8Carbazole	170	ū
84-74-2Di-n-Butylphthalate	38	J
206-44-0Fluoranthene	170	ט
129-00-0Pyrene	170	U
85-68-7Butylbenzylphthalate	170	U
91-94-13,3'-Dichlorobenzidine	170	U
56-55-3Benzo(a) Anthracene	170	U
218-01-9Chrysene	170	U
117-81-7bis(2-Ethylhexyl)Phthalate	91	J
117-84-0Di-n-Octyl Phthalate	170	U
205-99-2Benzo(b) Fluoranthene	170	U
207-08-9Benzo(k)Fluoranthene	170	Ū
50-32-8Benzo (a) Pyrene	170	Ü
193-39-5Indeno(1,2,3-cd) Pyrene		บ
53-70-3Dibenzo(a,h)Anthracene	170	บ็
191-24-2Benzo(g,h,i) Perylene	170	ū
131-24-2Benzo(g, n, 1) Perytene	. 1/0	١٥
	l	

102-SS-05

La ame: <u>CEIMIC CORP</u> Contract: <u>TETRA TECH</u> Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) <u>SOIL</u> Lab Sample ID: <u>990799-12</u> Sample wt/vol: 30.3 (g/mL) GLab File ID: IX019 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: _____7 decanted: (Y/N) N Date Extracted: 09/14/99Concentrated Extract Volume: 500(uL) Date Analyzed: 09/28/99 Injection Volume: 2.0(uL) Dilution Factor: _____1.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 108-95-2----Phenol 170 U 111-44-4-----bis(2-Chloroethyl)Ether 170 U 95-57-8----2-Chlorophenol 170 U 541-73-1----1,3-Dichlorobenzene 170 U 106-46-7----1,4-Dichlorobenzene 170 U 100-51-6-----Benzyl Alcohol 170 U 95-50-1----1,2-Dichlorobenzene 170 U 95-48-7----2-Methylphenol 170 U 108-60-1-----2,2'-oxybis(1-Chloropropane) 170 U 106-44-5----4-Methylphenol 170 U 621-64-7----N-Nitroso-Di-n-Propylamine____ 170 U 67-72-1-----Hexachloroethane____ 170 U 98-95-3-----Nitrobenzene____ U 170 78-59-1------Isophorone 170 IJ 88-75-5----2-Nitrophenol 170 U 105-67-9-----2,4-Dimethylphenol 170 U 65-85-0-----Benzoic Acid 36 J 111-91-1-----bis(2-Chloroethoxy)Methane 170 U 120-83-2----2,4-Dichlorophenol 170 U 120-82-1----1,2,4-Trichlorobenzene 170 U 91-20-3-----Naphthalene 170 U 106-47-8-----4-Chloroaniline 170 U 87-68-3------Hexachlorobutadiene U 170 59-50-7----4-Chloro-3-Methylphenol 170 U 91-57-6----2-Methylnaphthalene 170 U 77-47-4-----Hexachlorocyclopentadiene 170 U 88-06-2----2,4,6-Trichlorophenol U 170 95-95-4-----2,4,5-Trichlorophenol 350 U 91-58-7----2-Chloronaphthalene 170 U 88-74-4----2-Nitroaniline 350 U 131-11-3-----Dimethyl Phthalate U 170 208-96-8-----Acenaphthylene 170 U 606-20-2----2,6-Dinitrotoluene 170 U

Lab	Name:	CEIMIC (CORP			Contract	: TETRA	TECH	10.	2-55-05	_
Lab	Code:	CEIMIC	Case	No.:	CT0086	SAS No.	:	SDG	No.:	02S S 02	

Matrix: (soil/water) SOIL Lab Sample ID: <u>990799-12</u>

Sample wt/vol: 30.3 (g/mL) G Lab File ID: <u>IX019</u>

Level: (low/med) LOW Date Received: <u>09/09/99</u>

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Date Analyzed: 09/28/99 Concentrated Extract Volume: _____500(uL)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or uq/Kq) <u>UG/KG</u> Q

	T	1
99-09-23-Nitroaniline	350	U
83-32-9Acenaphthene	170	U
51-28-52,4-Dinitrophenol	350	U
100-02-74-Nitrophenol	350	u l
132-64-9Dibenzofuran	170	Ū
121-14-22,4-Dinitrotoluene	170	Ū
84-66-2Diethylphthalate	170	Ū
7005-72-34-Chlorophenyl-phenylether	170	lu l
86-73-7Fluorene	170	Ü
100-01-64-Nitroaniline	350	U
534-52-14,6-Dinitro-2-Methylphenol	350	U
86-30-6N-Nitrosodiphenylamine (1)	170	U
101-55-34-Bromophenyl-phenylether	170	ט
118-74-1Hexachlorobenzene	170	ט
87-86-5Pentachlorophenol	350	ן מ
of old of the phase beautiful or option of the phase beautiful or	1	U
85-01-8Phenanthrene	170	מ
120-12-7Anthracene	170	1 - 1
86-74-8Carbazole	170	ū
84-74-2Di-n-Butylphthalate	47	J
206-44-0Fluoranthene	170	U
129-00-0Pyrene	170	U
85-68-7Butylbenzylphthalate	170	ן ט
91-94-13,3'-Dichlorobenzidine	170	ן ט
56-55-3Benzo (a) Anthracene	170	U
218-01-9Chrysene	170	ן ט
117-81-7bis(2-Ethylhexyl)Phthalate	170	ן ט
117-84-0Di-n-Octyl Phthalate	170	U
205-99-2Benzo(b) Fluoranthene	170	ן ט
207-08-9Benzo(k)Fluoranthene	170	ן מ
50-32-8Benzo (a) Pyrene	170	ן מ
193-39-5Indeno(1,2,3-cd)Pyrene	170	<u>"</u>
53-70-3Dibenzo(a,h)Anthracene		Ü
191-24-2Benzo(g,h,i)Perylene	170	lu l
232 21 2 2 20.000 (3/.0/1/102/10000	1	1

102-SU-01

La .ame: <u>CEIMIC CORP</u> Contract: <u>TETRA TECH</u> Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 025502 Matrix: (soil/water) SOIL Lab Sample ID: 990799-03 Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX025 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: _____7 decanted: (Y/N) N____ Date Extracted: 09/14/99 Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99 Injection Volume: 2.0(uL) Dilution Factor: 20.0 GPC Cleanup: (Y/N) Y pH: ___ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 0 108-95-2-----Phenol 3400 U 111-44-4-----bis(2-Chloroethyl)Ether 3400 U 95-57-8-----2-Chlorophenol 3400 IJ 541-73-1----1,3-Dichlorobenzene U 3400 106-46-7----1,4-Dichlorobenzene 3400 U 100-51-6-----Benzyl Alcohol 3400 U 95-50-1-----1,2-Dichlorobenzene 3400 U 95-48-7----2-Methylphenol U 3400 108-60-1----2, 2'-oxybis (1-Chloropropane) 3400 U 106-44-5-----4-Methylphenol 3400 U 621-64-7----N-Nitroso-Di-n-Propylamine 3400 U 67-72-1-----Hexachloroethane U 3400 98-95-3-----Nitrobenzene 3400 U 78-59-1-----Isophorone 3400 U 88-75-5----2-Nitrophenol U 3400 105-67-9-----2,4-Dimethylphenol 3400 U 65-85-0-----Benzoic Acid 7100 U 111-91-1-----bis(2-Chloroethoxy) Methane U 3400 120-83-2----2,4-Dichlorophenol 3400 IJ 120-82-1----1, 2, 4-Trichlorobenzene U 3400 U 91-20-3-----Naphthalene 3400 106-47-8-----4-Chloroaniline U 3400 87-68-3-----Hexachlorobutadiene 3400 U 59-50-7----4-Chloro-3-Methylphenol 3400 U 91-57-6----2-Methylnaphthalene 3400 U 77-47-4-----Hexachlorocyclopentadiene U 3400 88-06-2----2,4,6-Trichlorophenol_ 3400 U 95-95-4-----2,4,5-Trichlorophenol U 7100 91-58-7----2-Chloronaphthalene 3400 U 88-74-4----2-Nitroaniline U 7100 131-11-3-----Dimethyl Phthalate 3400 U 3400 U 208-96-8-----Acenaphthylene 606-20-2----2,6-Dinitrotoluene 3400 U

102-SU-01

Lab Name: <u>CEIMIC CORP</u> Contract: <u>TETRA TECH</u> Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: 990799-03 Sample wt/vol: 30.1 (g/mL) GLab File ID: IX025 Level: (low/med) LOW___ Date Received: 09/09/99 % Moisture: _____7 decanted: (Y/N) N ___ Date Extracted: 09/14/99 Concentrated Extract Volume: ____500(uL) Date Analyzed: 09/29/99 Injection Volume: 2.0(uL) Dilution Factor: 20.0 GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q CAS NO. COMPOUND 99-09-2----3-Nitroaniline_____ 7100 U 83-32-9-----Acenaphthene 3400 U 51-28-5----2,4-Dinitrophenol 7100 U 100-02-7-----4-Nitrophenol_____ 7100 U 132-64-9-----Dibenzofuran 3400 U 121-14-2----2,4-Dinitrotoluene____ U 3400 84-66-2-----Diethylphthalate U 3400 7005-72-3----4-Chlorophenyl-phenylether U 3400 86-73-7-----Fluorene 3400 U 100-01-6----4-Nitroaniline 7100 U 534-52-1----4,6-Dinitro-2-Methylphenol___ U 7100 86-30-6-----Nitrosodiphenylamine (1) U 3400 101-55-3-----4-Bromophenyl-phenylether____ U 3400 118-74-1-----Hexachlorobenzene____ 3400 U 87-86-5----Pentachlorophenol____ 7100 U 85-01-8-----Phenanthrene 3400 U 120-12-7-----Anthracene____ U 3400 86-74-8-----Carbazole 3400 U 84-74-2-----Di-n-Butylphthalate 3400 U 206-44-0-----Fluoranthene____ 3400 U 129-00-0-----Pyrene U 3400 85-68-7-----Butylbenzylphthalate U 3400 91-94-1----3,3'-Dichlorobenzidine_____ U 3400 56-55-3-----Benzo(a) Anthracene_____ U 3400 218-01-9-----Chrysene U 3400 117-81-7-----bis(2-Ethylhexyl)Phthalate 3600 117-84-0-----Di-n-Octyl Phthalate_____ U 3400 205-99-2-----Benzo(b) Fluoranthene 3400 U 207-08-9-----Benzo(k)Fluoranthene U 3400 U 50-32-8-----Benzo(a) Pyrene 3400 193-39-5-----Indeno (1, 2, 3-cd) Pyrene____ U 3400 53-70-3-----Dibenzo(a,h)Anthracene U 3400 U 191-24-2-----Benzo(q,h,i)Perylene 3400

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6 Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976 Level: (low/med) LOW Date Received: % Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99 Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/22/99 Dilution Factor: 1.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u> CAS NO. COMPOUND 0 108-95-2----Phenol 18 111-44-4-----bis(2-Chloroethyl)Ether 27 27 95-57-8-----2-Chlorophenol 541-73-1----1,3-Dichlorobenzene 25 106-46-7----1,4-Dichlorobenzene 24 100-51-6-----Benzyl Alcohol 32 95-50-1-----1,2-Dichlorobenzene 25 95-48-7----2-Methylphenol 27 108-60-1----2,2'-oxybis(1-Chloropropane) 29 106-44-5----4-Methylphenol 28 621-64-7----N-Nitroso-Di-n-Propylamine 29 67-72-1-----Hexachloroethane 24 98-95-3-----Nitrobenzene 30 31 78-59-1-----Isophorone 88-75-5----2-Nitrophenol 32 22 105-67-9-----2,4-Dimethylphenol 65-85-0-----Benzoic Acid 29 111-91-1-----bis(2-Chloroethoxy)Methane 32 120-83-2----2, 4-Dichlorophenol 31 120-82-1----1,2,4-Trichlorobenzene 27 29 91-20-3-----Naphthalene 106-47-8-----4-Chloroaniline 26 87-68-3-----Hexachlorobutadiene 28 59-50-7----4-Chloro-3-Methylphenol 34 91-57-6----2-Methylnaphthalene 32 25 77-47-4-----Hexachlorocyclopentadiene 88-06-2----2,4,6-Trichlorophenol 35 95-95-4----2,4,5-Trichlorophenol 34 91-58-7----2-Chloronaphthalene 32 35 88-74-4----2-Nitroaniline

34 33

37

131-11-3-----Dimethyl Phthalate

606-20-2----2,6-Dinitrotoluene

208-96-8-----Acenaphthylene

SLCSDH

Lab Name: CEIMIC COF	Contra	act: <u>TETRA_TECH</u>	02003.1			
Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02						
Matrix: (soil/water)	WATER	Lab Sample ID:	S0915-LCS6			
Sample wt/vol:	ole wt/vol: 1000 (g/mL) ML Lab File ID: DW976		DW976			
Level: (low/med)	(low/med) LOW Date Received:					
% Moisture:	ure: decanted: (Y/N) N Date Extracted: 09/15/99		l: <u>09/15/99</u>			
Concentrated Extract	ntrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99		09/22/99			
Injection Volume:	2.0(uL)	Dilution Facto	r: <u>1.0</u>			
GPC Cleanup: (Y/N)		NCENTRATION UNITS:				
CAS NO.		g/L or ug/Kg) <u>UG/L</u>				
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 86-74-8 87-86-5 85-01-8 120-12-7 86-74-8 206-44-0 129-00-0 85-68-7 218-01-9 117-84-0 117-84-0 205-99-2 207-08-9 207-08-9 50-32-8 193-39-5	Di-n-Butylphthalate_ Fluoranthene Pyrene Butylbenzylphthalate 3,3'-Dichlorobenzidin Benzo(a) Anthracene	halate	34 33 33 32 22 34 38 34 35 35 35 35 37 37 38 39 37 37 38 39 39 36 36 30 38 37 37 38 39 36 36 30 38 37 37 38 39 36 30 38 37 37 38 39 39 36 36 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 39 30 38 37 37 38 39 30 38 37 37 38 38 39 39 30 38 37 37 38 38 39 39 30 38 37 37 38 38 39 39 30 38 37 37 38 38 39 39 30 38 37 37 38 38 39 39 30 38 37 37 38 38 39 39 30 38 37 37 37 38 38 39 39 30 30 38 37 37 37 38 38 39 39 30 30 38 37 37 37 38 38 39 39 30 30 38 37 37 38 38 39 39 30 30 38 37 37 37 38 38 39 39 30 30 38 37 37 37 38 38 39 39 30 30 38 37 37 37 38 38 38 37 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 38 37 37 38 38 38 37 37 38 38 38 37 37 38 38 38 38 37 37 38 38 38 37 37 38 38 38 38 37 37 38 38 38 37 37 38 38 38 38 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38			

ontract: TETRA TECH

L Name: <u>CEIMIC COF</u>	QP	Contract: <u>TETR</u>	A TECH				
Lab Code: CEIMIC Case No.: CTOO86 SAS No.: SDG No.: 02SS02							
Matrix: (soil/water) SOIL Lab Sample ID: S0914-LCS5							
Sample wt/vol:	imple wt/vol:30.0 (g/mL) G Lab File ID:JY638						
Level: (low/med)	LOW	Date F	Received:				
% Moisture:	decanted: (Y/N) N	Date B	Extracted:	09/14/99			
Concentrated Extract Volume:500(uL) Date Analyzed: 09/27/99							
Injection Volume:	njection Volume: 2.0(uL) Dilution Factor: 1.0			: 1.0			
GPC Cleanup: (Y/N)	<u>Ү</u> рН:	CONGENERATION	ovi iniima				
CAS NO.	COMPOUND	CONCENTRATIO		Q			
95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 98-95-3 78-59-1 88-75-5 111-91-1 120-83-2 120-82-1 91-20-3 106-47-8 91-20-3 106-47-8 91-57-6 91-57-6 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	bis(2-Chloroethy2-Chlorophenol1,3-Dichlorobens1,4-DichlorobensBenzyl Alcohol1,2-Dichlorobens2-Methylphenol2,2'-oxybis(1-Cl4-MethylphenolN-Nitroso-Di-n-lHexachloroethansNitrobenzene_	zene zene zene hloropropane) Propylamine e nol oxy) Methane nol benzene iene ylphenol lene pentadiene phenol phenol lene	100 100 100 95 140 110 110 110 120 120 120 110 121 110 111 111	00 00 00 00 00 00 00 00 00 00 00 00 00			

SLCSJI

Lab Name: CEIMIC COR	P Contra	ct: TETRA TECH	
Lab Code: <u>CEIMIC</u>	Case No.: CTO086 SAS N	No.: SDG No.: 02SS	302
Matrix: (soil/water)	SOIL	Lab Sample ID: <u>S0914-LC</u>	<u> 285</u>
Sample wt/vol:	30.0 (g/mL) <u>G</u>	Lab File ID: <u>JY638</u>	
Level: (low/med)	LOW	Date Received:	-
% Moisture:	decanted: (Y/N) N	Date Extracted: 09/14/99	<u> </u>
Concentrated Extract	Volume:500(uL)	Date Analyzed: 09/27/99	<u> </u>
Injection Volume:	<u>2.0</u> (uL)	Dilution Factor: <u>1</u> .	<u>. 0</u>
GPC Cleanup: (Y/N) CAS NO.	CON	ICENTRATION UNITS: g/L or ug/Kg) <u>UG/KG</u> Q	
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 118-74-1 87-86-5 85-01-8 120-12-7 86-74-8 120-12-7 206-44-0 129-00-0 85-68-7 117-84-0 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5	Di-n-Butylphthalate_ Fluoranthene Pyrene Butylbenzylphthalate 3,3'-Dichlorobenzidin Benzo(a) Anthracene	1200 1200 1400 1200 1600 1400 1200 1600 1400 1300 1800 1800 1400 1400 1400 1700 1700 1800 1900 1900 1900 1700 2100 1900 1900 1900 1900 1900 1900 19	

La ame: CEIMIC CORP Con	SLCSJQ stract: TETRA TECH
Lab Code: CEIMIC Case No.: CTO086 SA	S No.: SDG No.: 02SS02
Matrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>S0922-LCS7</u>
Sample wt/vol: $30.0 \text{ (g/mL)} \text{ G}$	Lab File ID: <u>JY681</u>
Level: (low/med) <u>LOW</u>	Date Received:
% Moisture: decanted: (Y/N) N	Date Extracted: <u>09/22/99</u>
Concentrated Extract Volume: 500 (uL)	Date Analyzed: 09/29/99
Injection Volume: 2.0(uL)	Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH:	
	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
108-95-2	e 1200 1200 e 1200 e 1200 e 1200 e 1200 1200 1300 1200 1300 1400 1300 1400 1300 1200 1300 1400 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 1200 1300 120

SLCSJO Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) SOIL Lab Sample ID: S0922-LCS7 Sample wt/vol: 30.0 (g/mL) GLab File ID: JY681 Level: (low/med) LOW___ Date Received: % Moisture: decanted: (Y/N) N Date Extracted: 09/22/99 Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99 Injection Volume: 2.0(uL) Dilution Factor: _____1.0 GPC Cleanup: (Y/N) Y pH: ___ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 99-09-2-----3-Nitroaniline 1400 83-32-9-----Acenaphthene 1400 51-28-5----2,4-Dinitrophenol 1300 100-02-7----4-Nitrophenol 1700 132-64-9-----Dibenzofuran 1400 121-14-2----2,4-Dinitrotoluene 1800 84-66-2----Diethylphthalate 1600 7005-72-3----4-Chlorophenyl-phenylether 1500 86-73-7-----Fluorene 1500 100-01-6-----4-Nitroaniline 1600 534-52-1-----4,6-Dinitro-2-Methylphenol 1700 86-30-6-----N-Nitrosodiphenylamine (1)____ 1600 101-55-3----4-Bromophenyl-phenylether 1500 118-74-1-----Hexachlorobenzene 1500 87-86-5-----Pentachlorophenol 390 85-01-8-----Phenanthrene 1500 120-12-7-----Anthracene 1500 86-74-8------Carbazole 1500 84-74-2----Di-n-Butylphthalate 1500 206-44-0-----Fluoranthene 1600 129-00-0-----Pyrene 1500 85-68-7-----Butylbenzylphthalate 1700 91-94-1-----3,3'-Dichlorobenzidine 1500 56-55-3-----Benzo (a) Anthracene 1600 218-01-9-----Chrysene 1600 117-81-7-----bis(2-Ethylhexyl)Phthalate 1700 117-84-0-----Di-n-Octyl Phthalate 1800 205-99-2----Benzo (b) Fluoranthene 1600 207-08-9-----Benzo(k)Fluoranthene 1700 50-32-8-----Benzo (a) Pyrene 1600 193-39-5-----Indeno(1,2,3-cd)Pyrene 1600 53-70-3-----Dibenzo(a,h)Anthracene 1100

1600

191-24-2-----Benzo(g,h,i)Perylene

SBLKDH

I Name: <u>CEIMIC COF</u>	D	Contract: <u>TETRA</u>	<u>TECH</u>			
Lab Code: <u>CEIMIC</u>					<u>02SS02</u>	
Matrix: (soil/water)	WATER	Lab Sa	imple ID:	<u>S091</u>	.5-B6	
Sample wt/vol:	<u>1000</u> (g/mL) <u>ML</u>	Lab Fi	le ID:	DW97	'5	
Level: (low/med)	LOW	Date R	Received:			
% Moisture:	decanted: (Y/N) N	Date E	extracted:	09/1	.5/99	
Concentrated Extract	Volume:1000(uL) Date A	malyzed:	09/2	2/99	
Injection Volume:	2.0(uL)	Diluti	on Factor	:	1.0	
GPC Cleanup: (Y/N) CAS NO.	N pH:	CONCENTRATIO		····	Q	
95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 98-95-3 78-59-1 88-75-5 111-91-1 120-83-2 120-82-1 91-20-3 91-58-3 88-06-2 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	bis(2-Chloroeth 2-Chlorophenol 1,3-Dichloroben 1,4-Dichloroben Benzyl Alcohol 1,2-Dichloroben 2,2'-oxybis(1-Cl) 4-Methylphenol N-Nitroso-Di-n- Hexachloroethand Nitrobenzene	zene zene zene zene hloropropane) Propylamine e nol oxy) Methane nol benzene iene ylphenol lene pentadiene phenol phenol lene ate		·5	ממממממממממממממממממממממממממממ	

SBLKDH Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Matrix: (soil/water) WATER Lab Sample ID: S0915-B6 Sample wt/vol: 1000 (g/mL) ML Lab File ID: D**W**975 Level: (low/med) LOW Date Received: % Moisture: _____ decanted: (Y/N) N____ Date Extracted: <u>09/15/99</u> Concentrated Extract Volume: ____1000(uL) Date Analyzed: <u>09/22/99</u> Dilution Factor: 1.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) N pH: ___ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q 99-09-2----3-Nitroaniline 10 U 83-32-9------Acenaphthene 5 U 51-28-5----2,4-Dinitrophenol 10 U 100-02-7----4-Nitrophenol 10 U 132-64-9------Dibenzofuran U 5 121-14-2----2,4-Dinitrotoluene 5 U 5 84-66-2----Diethylphthalate U 7005-72-3----4-Chlorophenyl-phenylether 5 U 86-73-7-----Fluorene 5 U 100-01-6----4-Nitroaniline U 10 534-52-1----4,6-Dinitro-2-Methylphenol 10 U 86-30-6----N-Nitrosodiphenylamine (1) 5 U 101-55-3----4-Bromophenyl-phenylether 5 U 118-74-1-----Hexachlorobenzene 5 U 87-86-5----Pentachlorophenol 10 U 85-01-8-----Phenanthrene 5 U 5 120-12-7-----Anthracene U 5 86-74-8-----Carbazole U 84-74-2-----Di-n-Butylphthalate 1 J 5 206-44-0-----Fluoranthene U 5 129-00-0-----Pyrene U 85-68-7-----Butylbenzylphthalate 5 U 91-94-1----3,3'-Dichlorobenzidine 5 U 56-55-3-----Benzo(a)Anthracene 5 U 218-01-9-----Chrysene 5 U 2 117-81-7-----bis(2-Ethylhexyl)Phthalate J 5 U 117-84-0-----Di-n-Octyl Phthalate 205-99-2-----Benzo (b) Fluoranthene 5 U 5 207-08-9-----Benzo(k)Fluoranthene U 50-32-8-----Benzo(a) Pyrene 5 U 193-39-5-----Indeno(1,2,3-cd)Pyrene 5 U 53-70-3-----Dibenzo(a,h)Anthracene U U 191-24-2----Benzo(g,h,i)Perylene

SBLKJI

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS0	2
Matrix: (soil/water) <u>SOIL</u> Lab Sample ID: <u>S0914-B5J</u>	
Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY635	
Level: (low/med) LOW Date Received:	
Moisture: decanted: (Y/N) N Date Extracted: 09/14/99	
Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99	
Injection Volume: 2.0(uL) Dilution Factor: 1.0	_
GPC Cleanup: (Y/N) Y pH: CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q	- 1
108-95-2Phenol	

Lab File ID: <u>JY635</u>

1X ORGANICS ANALYSIS DATA SHEET

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-B5J

Level: (low/med) LOW Date Received:

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

Sample wt/vol: 30.0 (g/mL)

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

CONCENTRATION UNITS:

99-09-2	3-Nitroaniline	330	ט
83-32-9	Acenaphthene	160	ן ט
51-28-5	2,4-Dinitrophenol	330	ן ט
100-02-7	4-Nitrophenol	330	ן ט
	Dibenzofuran	160	ן ט
	2,4-Dinitrotoluene	160	ט
84-66-2	Diethylphthalate	160	U
	4-Chlorophenyl-phenylether	160	ן ט
	Fluorene	160	ט
	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-Methylphenol	330	ן ט
86-30-6	N-Nitrosodiphenylamine (1)	160	ן ט
	4-Bromophenyl-phenylether	160	ע
118-74-1	Hexachlorobenzene	160	ט
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	160	U
120-12-7	Anthracene	160	ט
86-74-8		160	U
84-74-2	Di-n-Butylphthalate	160	U
206-44-0	Fluoranthene	160	ן ט
129-00-0		160	U
85-68-7	Butylbenzylphthalate	160	ע
91-94-1	3,3'-Dichlorobenzidine	160	U
56-55-3	Benzo(a)Anthracene	160	ן ט
218-01-9	Chrysene	160	U
117-81-7	bis(2-Ethylhexyl)Phthalate	160	U
	Di-n-Octyl Phthalate	160	ט
	Benzo(b)Fluoranthene	160	U
207-08-9	Benzo(k)Fluoranthene	160	U
	Benzo(a) Pyrene	160	ע
	Indeno(1,2,3-cd)Pyrene	160	ט
53-70-3	Dibenzo(a,h)Anthracene	160	ַט
	Benzo(g,h,i)Perylene	160	ט
			_

ontract: TETRA TECH SBLKJQ

Lab Name: <u>CEIMIC CORP</u> Contract: <u>TETRA</u>	TECH	
Lab Code: CEIMIC Case No.: CTO086 SAS No.:		
Matrix: (soil/water) <u>SOIL</u> Lab Sa	mple ID: <u>S09</u> 2	22-B/J
Sample wt/vol: $30.0 \text{ (g/mL) } G$ Lab Fi	le ID: <u>JY6</u>	78
Level: (low/med) <u>LOW</u> Date R	eceived:	
Moisture: decanted: (Y/N) N Date E	xtracted: 09/	22/99
Concentrated Extract Volume:500(uL) Date A	nalyzed: <u>09/</u> 2	29/99
Injection Volume: 2.0 (uL) Diluti	on Factor:	1.0
GPC Cleanup: (Y/N) Y pH:	AN IDITEC.	
CONCENTRATIO CAS NO. COMPOUND (ug/L or ug/		Q
108-95-2Phenol 111-44-4	160 160 160 160 160 160 160 160 160 160	מממממממממממממממממממממממממ
208-96-8Acenaphthylene 606-20-22,6-Dinitrotoluene	160 160	ŭ

SBLKJQ

Lab Name: CEIMIC CORP		Contract: TETRA TECH				
Lab Code: CEIMIC Ca	ase No.: <u>CTO086</u>	SAS No.:	SDG No.	: <u>02SS02</u>		
Matrix: (soil/water)	SOIL	Lab Sar	mple ID: <u>SO</u>	922-B7J		
Sample wt/vol:	<u>30.0</u> (g/mL) <u>G</u>	Lab Fi	le ID: JY	678		
Level: (low/med)	LOW	Date Re	eceived:			
% Moisture:	decanted: (Y/N) <u>N</u>	Date E	xtracted: <u>09</u>	/22/99		
Concentrated Extract V	Volume:500(uL) Date A	nalyzed: <u>09</u>	/29/99		
Injection Volume:	2.0(uL)	Dilutio	on Factor: _	1.0		
GPC Cleanup: (Y/N)	<u>Y</u> pH:	CONCENTRATIO	N INITE.			
CAS NO.	COMPOUND			Q		
83-32-9	CarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphth3,3'-DichlorobeBenzo(a)Anthrac	ene e phenylether ethylphenol ylamine (1) henylether ne ol late alate enzidine ene cl) Phthalate alate thene thene cl) Pyrene chracene	160	מממממממממממממממממממממממממממממממממממממממ		

Lab File ID: IX023

Date Received: 09/09/99

100-SS-01MS Law wame: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: <u>990799-05MS</u>

Level: (low/med) LOW

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: _____500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: ____

Sample wt/vol: 30.4 (g/mL) G

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q

	1	 ,
108-95-2Phenol	920	J
111-44-4bis(2-Chloroethyl)Ether	960	J
95-57-82-Chlorophenol	970	J
541-73-11,3-Dichlorobenzene	830	J
106-46-71,4-Dichlorobenzene	790	J
100-51-6Benzyl Alcohol	1300	J
95-50-11,2-Dichlorobenzene	900	J
95-48-72-Methylphenol	1100	J
108-60-12,2'-oxybis(1-Chloropropane)	1100	J
106-44-54-Methylphenol	920	J
621-64-7N-Nitroso-Di-n-Propylamine	1100	J
67-72-1Hexachloroethane	980	J
98-95-3Nitrobenzene	990	J
78-59-1Isophorone	1100	J
88-75-52-Nitrophenol	1100	J
105-67-92,4-Dimethylphenol	1400	J
65-85-0Benzoic Acid	2000	J
111-91-1bis(2-Chloroethoxy)Methane	1200	J
120-83-22,4-Dichlorophenol	1300	J
120-82-11,2,4-Trichlorobenzene	910	J
91-20-3Naphthalene	1100	J
106-47-84-Chloroaniline	380	J
87-68-3Hexachlorobutadiene	1100	JJ
59-50-74-Chloro-3-Methylphenol	1400	J
91-57-6-=2-Methylnaphthalene	1100	J
77-47-4Hexachlorocyclopentadiene	820	J
88-05-22,4,6-Trichlorophenol	1200	J
95-95-42,4,5-Trichlorophenol	1000	J
91-58-72-Chloronaphthalene	1100	J
88-74-42-Nitroaniline	1100	J
131-11-3Dimethyl Phthalate	1300	J
208-96-8Acenaphthylene	1100	J
606-20-22,6-Dinitrotoluene	1100	J
2 / 0 Dinition Octobracia	1	
EODM T V 1		_ ' '

100-SS-01MS

Lab Name: CEIMIC CORP Contract: TETR	l l	00-SS-01MS
Lab Code: CEIMIC Case No.: CT0086 SAS No.:	SDG No.	: <u>02SS02</u>
Matrix: (soil/water) <u>SOIL</u> Lab S	ample ID: 99	0799-05MS
Sample wt/vol: 30.4 (g/mL) G Lab F	ile ID: <u>IX</u>	023
Level: (low/med) <u>LOW</u> Date	Received: 09	/09/ 99
% Moisture: <u>12</u> decanted: (Y/N) <u>N</u> Date	Extracted: <u>09</u>	/14/99
Concentrated Extract Volume: 500(uL) Date	Analyzed: <u>09</u>	/29/99
Injection Volume: 2.0(uL) Dilut	ion Factor: _	10.0
ONCENTRATI CAS NO. COMPOUND CONCENTRATI CAS NO. CONCENTRATI CAS NO.	ON UNITS: /Kg) UG/KG 3700 1300 750 1100 1300 1000 1400 1500 1400 1500 1700 1700 1300 1500 1500 1500 1500 1500 1500 15	ס פר
117-84-0	1100 1300 1700 1500 1500 1400 1500	J J J J J J

Date Received: 09/09/99

100-SS-01MSD La Jame: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MSD

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024

Level: (low/med) LOW

% Moisture: <u>12</u> decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: ____10.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS: CAS NO. COMPOUND (uq/L or uq/Kq) <u>UG/KG</u> Q

108-95-2-----Phenol 1200 J 111-44-4-----bis(2-Chloroethyl)Ether 1300 J 95-57-8-----2-Chlorophenol 1300 J 541-73-1----1,3-Dichlorobenzene J 1100 106-46-7-----1,4-Dichlorobenzene J 1100 100-51-6-----Benzyl Alcohol J 1600 95-50-1----1,2-Dichlorobenzene 1200 J 95-48-7----2-Methylphenol 1500 J 108-60-1----2,2'-oxybis(1-Chloropropane) 1500 J 106-44-5----4-Methylphenol 1400 J 621-64-7----N-Nitroso-Di-n-Propylamine 1200 J 67-72-1-----Hexachloroethane 1100 J 98-95-3-----Nitrobenzene 1600 J 78-59-1-----Isophorone 1400 J 88-75-5----2-Nitrophenol 1300 J 105-67-9----2,4-Dimethylphenol 1800 J 65-85-0-----Benzoic Acid 3000 J 111-91-1-----bis(2-Chloroethoxy)Methane J 1300 120-83-2----2,4-Dichlorophenol 1400 J 120-82-1----1,2,4-Trichlorobenzene 1300 J 91-20-3-----Naphthalene 1200 J 106-47-8----4-Chloroaniline 1800 U 87-68-3-----Hexachlorobutadiene 1500 J 59-50-7-----4-Ghloro-3-Methylphenol 1700 J 91-57-6-=---2-Methylnaphthalene J 1300 77-47-4-----Hexachlorocyclopentadiene J 1300 88-06-2----2,4,6-Trichlorophenol J 1800 95-95-4----2,4,5-Trichlorophenol J 1800 91-58-7----2-Chloronaphthalene J 1700 J 88-74-4----2-Nitroaniline 1700 131-11-3-----Dimethyl Phthalate J 1800 208-96-8-----Acenaphthylene 1400 J 606-20-2----2,6-Dinitrotoluene J 1600

100-SS-01MSD

Lab Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02 Lab Sample ID: 990799-05MSD Matrix: (soil/water) SOIL Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024 Level: (low/med) LOW Date Received: 09/09/99 % Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99 Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99 Dilution Factor: 10.0 Injection Volume: 2.0(uL) GPC Cleanup: (Y/N) Y pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 99-09-2-----3-Nitroaniline_____ 490 J 1800 J 83-32-9-----Acenaphthene 51-28-5----2,4-Dinitrophenol J 1100 100-02-7----4-Nitrophenol 2100 J J 132-64-9-----Dibenzofuran 1800 121-14-2----2,4-Dinitrotoluene____ J 1500 84-66-2-----Diethylphthalate 2100 7005-72-3----4-Chlorophenyl-phenylether 1800 J 86-73-7-----Fluorene 1900 100-01-6-----4-Nitroaniline 820 J 534-52-1-----4,6-Dinitro-2-Methylphenol 1300 J 86-30-6----N-Nitrosodiphenylamine (1) 1800 J 101-55-3-----4-Bromophenyl-phenylether 1900 118-74-1------Hexachlorobenzene 2400 87-86-5-----Pentachlorophenol 1500 85-01-8-----Phenanthrene 2200 120-12-7-----Anthracene 1800 J 86-74-8------Carbazole 2100 84-74-2-----Di-n-Butylphthalate 1900 206-44-0-----Fluoranthene 2300 129-00-0-----Pyrene 1700 85-68-7-----Butylbenzylphthalate 1800 J 91-94-1----3,3'-Dichlorobenzidine 1800 1900 56-55-3-----Benzo(a)Anthracene 218-0T-9-----Chrysene 2200 117-81-7-----bis(2-Ethylhexyl)Phthalate 1700 117-84-0-----Di-n-Octyl Phthalate 1400 J 205-99-2----Benzo (b) Fluoranthene 2000 207-08-9-----Benzo(k)Fluoranthene 1800 J J 50-32-8-----Benzo(a) Pyrene 1800 193-39-5----Indeno(1,2,3-cd)Pyrene 2000 53-70-3-----Dibenzo(a,h)Anthracene 2100 2000 191-24-2-----Benzo(g,h,i)Perylene

2C WATER SEMIVOLATILE SURROGATE RECOVERY

Lat Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

	EPA	Sl	S2	S3	S4	S5	S6	S7	S8	TOT
	SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#	(2CP)#	(DCB)#	OUT
	==========	=====	=====	=====	=====	=====	=====		=====	===
01	100-MW-001-0	81	76	80	41	57	82	67	73	0
02	100-MW-002-0	64	64	81	24	35	73	52	56	0
03	100-MW-003-0	79	78	89	39	52	84	64	71	0
04	100-MW-004-0	85	84	85	20	28	89	55	76	0
05	100-MW-DD-01	75	75	76	18	29	77	51	70	0
06	102-MW-003-0	77	74	88	19	32	77	- 53	68	0
07	102-MW-004-0	83	76	95	41	56	84	69	72	0
08	SLCSDH	64	67	76	35	44	77	52	·52	0
09	SBLKDH	65	66	81	26	39	7.2	54	58	0
						·				

				Q(C LIMITS	
S1	(NBZ)	=	Nitrobenzene-d5	(35-114)	
S2	(FBP)	=	2-Fluorobiphenyl	(43-116)	
S3	(TPH)	=	Terphenyl-d14	(33-141)	
S4	(PHL)	=	Phenol-d5	(10-100)	
S5	(2FP)	=	2-Fluorophenol	(21-125)	
S6	(TBP)	=	2,4,6-Tribromophenol	(25-134)	
S7	(2CP)	=	2-Chlorophenol-d4	(33-110)	(advisory)
S8	(DCB)	=	1,2-Dichlorobenzene-d4	(16-110)	(advisory)

[#] Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2D SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

Level: (low/med) LOW

	EPA	S1	S2	S3	S4	S5	S6	S7	S8	TOT
	SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#	(2CP)#	(DCB)#	OUT
	========	=====	=====	=====	=====	=====	======	=====	======	===
01	100-22-DD	44 D	65 D	81 D	54 D	51 D	58 D	55 D	51 D	0
02	100-SS-01	52 D	61 D	106 D	56 D	60 D	91 D	55 D	48 D	0
03	100-SS-02	3 3 D	53 D	68 D	41 D	39 D	45 D	41 D	39 D	0
04	100-SS-03	53	57	108	42	44	107	44	46	0
05	100-SS-04	64	69	81	56	54	96	55	59	0
06	102-SS-01	76	84	103	71	69	97	67	69	0
07	102-SS-02	73	82	106	70	72	96	69	71	0
08	102-SS-03	80	85	91	72	68	143 *	73	68	1
09	102-SS-04	94	97	107	82	84	135 *	80	87	1
10	102-SS-05	74	81	89	62	59	108	63	60	0
11	102-SU-01	40 D	57 D	60 D	43 D	47 D	52 D	45 D	57 D	0
12	SLCSJI	68	72	111	61	63	79	62	62	0
13	SLCSJQ	81	88	101	74	77	95	74	75	0
14	100-SS-01MS	58 D	62 D	91 D	47 D	45 D	84 D	49 D	47 D	0
15	100-SS-01MSD	74 D	82 D	92 D	55 D	65 D	110 D	64 D	59 D	0
16	SBLKJI	68	78	99	69	65	59	66	68	0
17	SBLKJQ	78	80	105	75	73	66	72	77	0

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QC LIMITS
S1 (NBZ) = Nitrobenzene-d5 (23-120)
S2 (FBP) = 2-Fluorobiphenyl (30-115)
S3 (TPH) = Terphenyl-d14 (18-137)
S4 (PHL) = Phenol-d5 (24-113)
S5 (2FP) = 2-Fluorophenol (25-121)
S6 (TBP) = 2,4,6-Tribromophenol (19-122)
S7 (2CP) = 2-Chlorophenol-d4 (20-130) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4 (20-130) (advisory)
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[#] Column to be used to flag recovery values

^{*} Values outside of contract required QC limits

D Surrogate diluted out

Matrix Spike Summary

SAS NO _____

CASE NO CTO086 LABORATORY CEIMIC CORP CONTRACT TETRA TECH
SAS NO REPORTED 10/06/99 15:10 CUSTOMER PENSACOLA

 FILE NAME
 IX022
 SAMPLE ID
 100-SS-01
 LEVEL
 LOW

 SPIKE
 IX023
 LAB SAMP ID
 990799-05
 MATRIX
 SOIL

 DUP SPIKE
 IX024
 ANALYZED
 09/29/99 01:38
 UNITS
 ug/Kq

		CONC	CONC	CONC	%	CONC	96	
COMPOUND	TYPES	SAMPLE	SPIKED		<u>REC</u>			RPD
Phenol	A		50.00	24.30	49	32.08	64	-28
bis(2-Chloroethyl)Ether	В		50.00	25.37	51	34.98	70	-32
2-Chlorophenol	Α		50.00	25.56	51	33.03	6 6	-25
1,3-Dichlorobenzene	В		50.00	22.00	44	30.24	60	-32
1,4-Dichlorobenzene	В		50.00	20.8 8	42	29.80	60	-35
Benzyl Alcohol	А		50.00	33.39	67	40.95	82	-20
1,2-Dichlorobenzene	В		50.00	23.75	48	31.22	62	-27
2-Methylphenol	Α		50.00	28.06	56	39.61	79	- 34
2,2'-oxybis(1-Chloropropane)			50.00	28.11	56	39.63	79	-34
4-Methylphenol	A		50.00	24.29	49	35.78	72	-38
N troso-Di-n-Propylamine	В		50.00	29.61	59	32.19	64	- 8
He. chloroethane	В		50.00	25.99	52	29.46	59	-13
Nitrobenzene	В		50.00	26.09	52	43.10	8 6	-49
Iŝophorone	В		50.00	28.12	56	37.92	76	-30
2-Nitrophenol	A		50.00	28.92	58	35.32	71	-20
2,4-Dimethylphenol	A		50.00	36.78	74	46.86	94	-24
Benzoic Acid	A		100.00	51.70	52	79.01	79	-42
bis(2-Chloroethoxy)Methane	В		50.00	31.52	63	34.07	68	- 8
2,4-Dichlorophenol	A		50.00	33.27	67	37.21	74	-11
1,2,4-Trichlorobenzene	В		50.00	24.08	48	33.23	66	-32
Naphthalene	В		50.00	29.21	58	32.19	64	-10
4-Chloroaniline	В		50.00	9.94	20			
Hexachlorobutadiene	В		5 0 .00	28.36	57	40.19	80	-35
4-Chloro-3-Methylphenol	A		50.00	36.11	72	43.85	88	-19
2-Methylnaphthalene	В		50.00	29.46	59	34.44	69	-16
Hexachlorocyclopentadiene	В		50.00	21.69	43	33.88	68	-44
2,4,6-Trichlorophenol	A		50.00	32.66	65	47.86	96	-38
2,4,5-Trichlorophenol	Α		50.00	27.58	55	47.02	94	-52
2-Chloronaphthalene	В		50.00	29.29	59	43.87	88	-40
2-Nitroaniline	В		50.00	28.03	56	44.19	88	-45
Dimethyl Phthalate	В		50.00	33.12	66	46.37	93	-33
Acenaphthylene	В		50.00	28.97	58	37.36	75	-25
2,6-Dinitrotoluene	B		50.00	29.00	58	42.42	85	-38
3-Nitroaniline	B		50.00	,		12.97	26	•
Acenaphthene	В		50.00	33.23	6 6	47.40		-35
2 Dinitrophenol	Ā		50.00	19.74	39	29.98	60	-41
4 crophenol	A		50.00	28.85	58	56.25		-64
Dibenzofuran	В		50.00	-34.24	68	47.99	96	-33
2,4-Dinitrotoluene	В		50.00	27.21	54	40.68	81	-40
	В		50.00	37.70	75	56.16		-39
Diethylphthalate	В		50.00	39.94	80	48.77	98	-20
4-Chlorophenyl-phenylether	ם		JU.00	32.34	30	40.11	20	- 20

Matrix Spike Summary

CASE NO CTOO86

LABORATORY CEIMIC CORP REPORTED 10/06/99 15:10 CONTRACT TETRA TECH CUSTOMER PENSACOLA

		CONC	CONC	CONC	0,0	CONC	٥,	
COMPOUND	TYPES	SAMPLE	SPIKED	MS	REC	MSD	REC	RPD
Fluorene	B		50.00	35.78	72		103	- 36
4-Nitroaniline	В		50.00	17.68	35	21.60	43	-20
4,6-Dinitro-2-Methylphenol	Α		50.00	27.10	54	33.72	67	- 22
N-Nitrosodiphenylamine (1)	В		50.00	38.83	78	48.63	97	-22
4-Bromophenyl-phenylether	В		50.00	45.11	90	50.21	100	-11
Hexachlorobenzene	В		50.00	44.04	88	63.17	126	-36
Pentachlorophenol	Α		50.00	34.86	70	39.33	79	-12
Phenanthrene	В		50.00	39.50	79	56.84	114	-36
Anthracene	В		50.00	33.33	67	48.16	96	-36
Carbazole	В		50.00	39.58	79	54.31	109	-31
Di-n-Butylphthalate	В		50.00	36.78	74	51.00	102	-32
Fluoranthene	В		50.00	40.81	82	60.99	122	-40
Pyrene	В		50.00	39.58	79	43.71	87	-10
Butylbenzylphthalate	В		50.00	34.92	70	46.45	93,	-28
3,3'-Dichlorobenzidine	В		50.00					
Benzo(a)Anthracene	В		50.00	39.55	79	50.08	100	- 23
Chrys e ne	В		50.00	43.12	86	57.93	116	-29
bis(2-Ethylhexyl)Phthalate	В	38.32	50.00	39.79	3	43.71	11	-114
Di-n-Octyl Phthalate	В		50.00	29.99	60	37.50	75	- •
Benzo(b)Fluoranthene	В		50.00	35.07	70	53.11	105	- 4
Benzo(k)Fluoranthene	В		50.00	44.54	89	46.48	93	- 4
Bēnzo(a) Pyrene	B		50.00	39.30	79	48.35	97	-21
Indeno(1,2,3-cd)Pyrene	В		50.00	40.24	80	52.79	106	- 27
Dibenzo(a,h)Anthracene	В		50.00	37.73	75		110	- 38
Benzo(g,h,i)Perylene	В		50.00	39.42	79	52.76	106	- 29
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Notes and summary data for this report.

% REC = ( MS - SAMPLE ) / SPIKE * 100

RPD = ( MS - MSD ) / ( ( MS + MSD ) / 2 - SAMPLE ) * 100
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LAB SAMP ID LAB QC ID	S0915-LCS6	SAMPLE ID TYPE	EPA	ATA RELEASE A	UTHORIZED BY
FILE NAME TUNE STANDARD BLANK TAPE/POS	DW976 DW967 DW968 DW975	RECEIVED EXTRACTED ANALYZED VERIFIED	09/15/99 09/22/99 20:0	_ METHOD _ FRACTION 5 INST _ ANALYST _ BOTTLE	BNA MS4
% MOISTURE (DECANTED) DIL FACTOR SAMPLE: CONDITIONS:	1.000	PH CLEANUP EXTRACT METHOD	CLL		LOW WATER ug/L

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY * FLGS
5	108-95-2	Phenol	50.00	18.36	36.72
5	111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08
C330	9 5-57- 8	2-Chlorophenol	50.00	27.06	54.12
C335	541-73-1	1,3-Dichloróbenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54
C350	95 - 50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-6 4- 7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72 - 1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20-3	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C - 0	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
.5	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69,52
C520	95- 95 -4	2,4,5-Trichlorophenol	50.00	33.85	67.70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY * FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32
C550	83-32-9	Acenaphthene	50.00	33.32	66.64
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26
C590	86-73-7	Fluorene	50.00	34.85	69.70
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92
C640	85-01-8	Phenanthrene	50.00	36.90	73.80
C645	120-12-7	Anthracene	50.00	36.51	73.02
C646	86-74-8	Carbazole	50.00	37.84	75.68
C650	84-74-2	Di-n-Butylphthalate	50.00	38 <i>.</i> 56	77.12
C655	206-44-0	Fluoranthene	50.00	38.99	77.98
C715	129-00-0	Pyrene	50.00	36.00	72.00
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92
C725	91- 94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12
C730	56 -55-3	Benzo(a)Anthracene	50.00	37.52	75.04
C740	218-01-9	Chrysene	50.00	37.05	74.10
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82

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LAB SAMP ID LAB QC ID	S0914-LCS5	SAMPLE ID TYPE	SLCSJI EPA	DATA	RELEASE A	UTHORIZED	ВҮ
FILE NAME TUNE STANDARD BLANK TAPE/POS	JY638 JY630 JY631 JY635	RECEIVED EXTRACTED ANALYZED VERIFIED	09/14/99 09/27/99 18	3:16	METHOD FRACTION INST ANALYST BOTTLE	BNA	
% MOISTURE (DECANTED) DIL FACTOR SAMPLE: CONDITIONS:	1.000	PH CLEANUP EXTRACT METHOD	GPC SONC		LEVEL MATRIX UNITS	SOIL	

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
. 5	108-95-2	Phenol	50.00	30.34	60.68
J_ 25	111-44-4	bis(2-Chloroethyl)Ether	50.00	31.44	62.88
C330	95-57-8	2-Chlorophenol	50.00	30.64	61.28
° C335	541-73-1	1,3-Dichlorobenzene	50.00	30.74	61.48
C340	106-46-7	1,4-Dichlorobenzene	50.00	28.47	56.94
C345	100-51-6	Benzyl Alcohol	50.00	42.98	85.96
C350	95-50 - 1	1,2-Dichlorobenzene	50.00	31.74	63.48
C35 5	95-48-7	2-Methylphenol	50.00	31.82	63.64
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	31.56	63.12
C365	106-44-5	4-Methylphenol	50.00	32.19	64.38
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.0 0	34.19	68.38
C375	67-72-1	Hexachloroethane	50.00	29.43	58.86
C410	98-95-3	Nitrobenzene	50.00	34.09	68.18
C415	78-59-1	Isophorone	50.00	35.07	70.14
C420	88-75 - 5	2-Nitrophenol	50.00	35.79	71.58
C425	105-67-9	2,4-Dimethylphenol	50.00	30.32	60.64
C430	65-85-0	Benzoid Acid	100.0	76.75	76.75
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	33.51	67.02
C440	120-83-2	2,4-Dichlorophenol	50.00	34.83	69.66
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	34.25	68.50
C450	91-20-3	Naphthalene	50.00	33.62	67.24
C455	106-47-8	4-Chloroaniline	50.00	18.87	37.74
C460	87-68-3	Hexachlorobutadiene	50.00	34.71	69.42
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	35.22	70.44
C470	91-57-6	2-Methylnaphthalene	50.00	36.02	72.04
7710	77-47-4	Hexachlorocyclopentadiene	50.00	30.83	61.66
₋ 5	88-06-2	2,4,6-Trichlorophenol	50.00	34.16	68.32
C5 [*] 20	95-95-4	2,4,5-Trichlorophenol	50.00	34.94	69.88
C525	91-58-7	2-Chloronaphthalene	50.00	36.31	72.62
C530	88-74-4	2-Nitroaniline	50.00	35.78	71.56
C535	131-11-3	Dimethyl Phthalate	50.00	37.34	74.68

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	35.40	70.80
C543	606-20-2	2,6-Dinitrotoluene	50.00	38.94	77.88
C545	99-09-2	3-Nitroaniline	50.00	30.86	61.72
C550	83-32-9	Acenaphthene	50.00	35.14	70.28
C555	51-28 - 5	2,4-Dinitrophenol	50.00	37.19	74.38
C560	100-02-7	4-Nitrophenol	50.00	43.22	86.44
C565	132-64-9	Dibenzofuran	50.00	35.02	70.04
C570	121-14-2	2,4-Dinitrotoluene	50.00	47.22	94.44
C580	84-66-2	Diethylphthalate	50.00	40.60	81.20
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	35.07	70.14
C590	86-73-7	Fluorene	50.00	35.06	70.12
C595	100-01-6	4-Nitroaniline	50.00	39.82	79.64
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	55.23	110.5
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	39.72	79.44
C625	101-55-3	4-Bromophenyl-phenylether	50.00	37.69	75.38
C630	118-74-1	Hexachlorobenzene	50.00	41.56	83.12
C635	87-86-5	Pentachlorophenol	50.00	15.13	30.26
C640	85-01-8	Phenanthrene	50.00	41.72	83.44
C645	120-12-7	Anthracene	50.00	41.74	83.48
C646	86-74-8	Carbazole	50.00	48.05	96.10
C650	84-74-2	Di-n-Butylphthalate	50.00	52.19	104.4
C655	206-44-0	Fluoranthene	50.00	52.31	104.6
C715	129-00 - 0	Pyrene	50.00	53.74	107.5
C720	85-68-7	Butylbenzylphthalate	50.00	55.74	111.5
⁻ C725	91-94-1	3,3'-Dichlorobenzidine	50.00	33.56	67.12
C730	56-55-3	Benzo(a)Anthracene	50.00	55.28	110.6
C740	218-01 - 9	Chrysene	50.00	58.13	116.3
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	57.83	115.7
C760	117-84-0	Di-n-Octyl Phthalate	50.00	64.26	128.5
C765	205-99 - 2	Benzo(b)Fluoranthene	50.00	52.25	104.5
C770	207-08-9	Benzo(k)Fluoranthene	50.00	63.76	127.5
C775	50-32-8	Benzo(a) Pyrene	50.00	56.17	112.3
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	56.34	112.7
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	57.10	114.2
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	50.62	101.2

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LAB SAMP ID LAB QC ID	S0922-LCS7	SAMPLE ID TYPE		DATA	RELEASE A	AUTHORIZED	ВУ
STANDARD	JY676	RECEIVED EXTRACTED ANALYZED VERIFIED	09/22/99 09/29/99	13:10	METHOI FRACTION INS ANALYS BOTTLI	N BNA T MS10	
% MOISTURE (DECANTED) DIL FACTOR SAMPLE: CONDITIONS:	1.000	PH CLEANUP EXTRACT METHOD			MATRI	L <u>LOW</u> X <u>SOIL</u> S <u>ug/Kg</u>	

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY
.5	108-95-2	Phenol	50.00	36.48	72.96
C 3 2 5	111-44-4	bis(2-Chloroethyl)Ether	50.00	33.94	67.88
C330	95-57 - 8	2-Chlorophenol	50.00	36.72	73.44
C335	541-73-1	1,3-Dichloróbenzene	50.00	35.06	70.12
C340	106-46-7	1,4-Dichlorobenzene	50.00	33.81	67.62
C345	100-51-6	Benzyl Alcohol	50.00	53.79	107.6
C350	95-50 - 1	1,2-Dichlorobenzene	50.00	35.47	70.94
C355	95-48-7	2-Methylphenol	50.00	37.40	74.80
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	34.30	68.60
C 36 5	106-44-5	4-Methylphenol	50.00	39. 95	79. 9 0
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	37.68	75.36
C375	67-72-1	Hexachloroethane	50.00	34.55	69.10
C410	98-95-3	Nitrobenzene	50.00	37.12	74.24
C415	78-59 -1	Isophorone	50.00	39.20	78.40
C420	88-75-5	2-Nitrophenol	50.00	42.03	84.06
C425	105-67-9	2,4-Dimethylphenol	50.00	39.5 9	79.18
C430	65-85-0	Benzoic Acid	100.0	64.14	64.14
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	37.88	75.76
C440	120-83-2	2,4-Dichlorophenol	50.00	41.68	83.36
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	37.99	75.98
C450	91-20-3-	Naphthalene	50.00	36.89	73.78
C455	106-47-8	4-Chloroaniline	50.00	38.11	76.22
C460	87 -58- 3	Hexachlorobutadiene	50.00	38.42	76.84
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	44.92	89.84
C470	91-57-6	2-Methylnaphthalene	50.00	40.84	81.68
1.0	77-47-4	Hexachlorocyclopentadiene	50.00	40.22	80.44
C-15	88-06-2	2,4,6-Trichlorophenol	50.00	42.74	85.48
C520	95-95-4	2,4,5-Trichlorophenol	50.00	43.78	87.56
C525	91-58-7	2-Chloronaphthalene	50.00	41.35	82.70
C530	88-74-4	2-Nitroaniline	50.00	47.58	95.16
C535	131-11-3	Dimethyl Phthalate	50.0 0	47.25	94.50

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY
C540	208-96-8	Acenaphthylene	50.00	43.13	86.26
C543	606-20-2	2,6-Dinitrotoluene	50.00	50.24	100.5
C545	99-09-2	3-Nitroaniline	50.00	43.33	86.66
C550	83-32-9	Acenaphthene	50.00	43.16	86.32
C555	51-28-5	2,4-Dinitrophenol	50.00	38.32	76.64
C560	100-02-7	4-Nitrophenol	50.00	50.88	101.8
C565	132-64-9	Dibenzofuran	50.00	41.92	83.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	53.79	107.6
C580	84-66-2	Diethylphthalate	50.00	47.64	95.28
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	43.97	87.94
C590	86 -73- 7	Fluorene	50.00	45.45	90.90
C595	100-01-6	4-Nitroaniline	50.00	46.56	93.12
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	52.26	104.5
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	47.13	94.26
C625	101-55-3	4-Bromophenyl-phenylether	50.00	43.86	87.72
C630	118-74-1	Hexachlorobenzene	50.00	44.56	89.12
C635	87-86-5	Pentachlorophenol	50.00	11.78	23.56
C640	85-01 -8	Phenanthrene	50.00	44,74	89.48
C645	120-12-7	Anthracene	50.00	45.24	90.48
C6 46	86-74-8	Carbazole	50.00	46.39	92.78
C650	84-74-2	Di-n-Butylphthalate	50.00	45.98	91.96
C655	206-44-0	Fluoranthene	50.00	46.52	93.04
C715	129-00-0	Pyrene	50.00	46.41	92.82
C720	85-68-7	Butylbenzylphthalate	50.00	50.93	101.9
~ C725	91-94-1	3,3'-Dichlorobenzidine	50.00	43.86	87.72
C730	56-55-3	Benzo(a)Anthracene	50.00	48.11	96.22
C740	218-01-9	Chrysene	50.00	46.75	93.50
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	50.44	100.9
C760	117-84-0	Di-n-Octyl Phthalate	50.00	53.44	106.9
C765	205-99-2	Benzo(b)Fluoranthene	50.00	46.99	93.98
C770	207-08-9	Benzo(k)Fluoranthene	50.00	50.68	101.4
C775	50 -32-8	Benzo(a) Pyrene	50.00	48.21	96.42
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	47.86	95.72
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	31.75	63.50
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	48.49	96.98

15

SBLKDH

La Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

Lab File ID: <u>DW975</u>

Lab Sample ID: S0915-B6

Instrument ID: MS4

Date Extracted: 09/15/99

Matrix: (soil/water) WATER

Date Analyzed: 09/22/99

Level: (low/med) <u>LOW</u>

Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
	==========	==========	=======================================	=======
01	100-MW-001-0	990799-16	DW986	09/23/99
02	100-MW-002-0	990799-17	DW987	09/23/99
03	100-MW-003-0	990799-18	DW998	09/23/99
04	100-MW-004-0	990799-20	DX000	09/23/99
05	100-MW-DD-01	990799-19	DW999	09/23/99
06	102-MW-003-0	990799-11	DW985	09/23/99
07	102-MW-004-0	990799-10	DW984	09/23/99
08	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

SBLKJI

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

Lab File ID: <u>JY635</u>

Lab Sample ID: S0914-B5J

Instrument ID: MS10

Date Extracted: <u>09/14/99</u>

Matrix: (soil/water) <u>SOIL</u>

Date Analyzed: 09/27/99

Level: (low/med) LOW

Time Analyzed: 1640

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
	=======================================			========
01	100-22-DD	990799-06	JY713	09/30/99
02	100-SS-01	990799-05	IX022	09/29/99
03	100-SS-02	990799-04	JY711	09/30/99
04	100-SS-03	990799-07	IX017	09/28/99
05	100-SS-04	990799-08	IX018	09/28/99
06	102-SS-01	990799-02	JY648	09/27/99
07	102-SS-03	990799-13	IX020	09/29/99
08	102-SS-04	990799-14	IX021	09/29/99
09	102-SS-05	990799-12	IX019	09/28/99
10	102-SU-01	990799-03	IX025	09/29/99
11	SLCSJI	S0914-LCS5	JY638	09/27/99
12	100-SS-01MS	990799-05MS	IX023	09/29/99
13	100-SS-01MSD	990799-05MSD	IX024	09/29/99

COMMENTS:

4B SEMIVOLATILE METHOD BLANK SUMMARY EPA SAMPLE NO.

SBLKJO

b 1 2: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

b File ID: JY578

Lab Sample ID: S0922-B7J

strument ID: MS10

Date Extracted: 09/22/99

trix: (soil/water) <u>SOIL</u>

Date Analyzed: <u>09/29/99</u>

vel:(low/med) LOW Time Analyzed: 1134

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA	LAB	LAB	DATE
SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
 102-SS-02	990799-01	JY694	09/29/99
SLCSJQ	S0922-LCS7	JY681	09/29/99

4MENTS:

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

ab File ID (Standard): DW968 Date Analyzed: 09/22/99

nstrument ID: MS4 Time Analyzed: 1533

		*		•			
		IS1(DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======	========	======
	12 HOUR STD	548821	4.65	1854821	5.83	1063350	8.54
	UPPER LIMIT	1097642	5.15	3709642	6.33	2125700	9.04
	LOWER LIMIT	274410	4.15	927410	5.33	531675	8.04
		========			======	========	
	EPA SAMPLE						
	NO.						
	=	========	======	========	======	=======	======
01	100-MW-001-0	308700	4.54	1040187	5.81	587388	8.53
02	100-MW-002-0	346400	4.64	1178671	5.81	640489	8.53
03	102-MW-003-0	404920	4.64	1352439	5.82	747938	8.53
04	102-MW-004-0	540155	4.64	1841921	5.82	1001111	8.53
05	SLCSDH	458717	4.63	1669235	5.80	972577	8.53
06	SBLKDH	588381	4.54	2304712	5.81	1202037	8.53
	;			_	•		

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d3

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab 'me: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

ab File ID (Standard): <u>DW968</u> Date Analyzed: <u>09/22/99</u>

nstrument ID: MS4 Time Analyzed: 1533

			•	<u> </u>			
		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT · #	AREA #	RT #	AREA #	RT #
		========	======	========	======	========	======
	12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
	UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
	LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
	=========	========	======	========	======	=======	======
	EPA SAMPLE						
	NO.						
		========	======	========	======	========	======
01	100-MW-001-0	978129	10.36	824918	13.14	867133	15.33
02	100-MW-002-0	1023590	10.36	765396	13.14	840120	15.33
03	102-MW-003-0	1154558	10.36	756181	13.13	763712	15.33
04	102-MW-004-0	1584802	10.36	955704	13.13	990772	15.33
05	SLCSDH	1667254	10.36	1398697	13.14	1318354	15.33
0 ^ '	SBLKDH	1970726	10.36	1312192	13.13	1325168	15.33
	·						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

88 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: ____ SDG No.: 02SS02

ab File ID (Standard): DW992 Date Analyzed: 09/23/99

nstrument ID: MS4 Time Analyzed: 1228

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT ·#	AREA #	RT #	AREA #	RT_#
	========	======	========	======	========	======
12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
UPPER LIMIT	878390	5.12	2300152	5.28	1605618	8.99
LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
	=======	======	========	======	========	======
EPA SAMPLE	. •					
NO.	·					
=========	=======	======	========	======	========	======
1 100-MW-003-0	644932	4.61	2133667	5.78	1185668	8.49
2 100-MW-004-0	728425	4.62	2478928	5.78	1359869	8.48
3 100-MW-DD-01	661335	4.61	2187010	5.78	1191457	8.49
l						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

0

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = +0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

6C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Cude: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 02SS02

b File ID (Standard): DW992 Date Analyzed: 09/23/99

strument ID: MS4 Time Analyzed: 1228

		• •		, -			
		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======	_========	========
	12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
	UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
	LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
		========	======	========	======	========	======
	EPA SAMPLE	. •					
	NO.						
	=========	=======			======	========	======
01	100-MW-003-0	2084337	10.31	1543900	13.08	1543484	15.23
02	100-MW-004-0	2249002	10.32	1604756	13.08	1721613	15.24
03	100-MW-DD-01	2073561	10.32	1612144	13.07	1674981	15.24
1	•						
02	LOWER LIMIT EPA SAMPLE NO. 100-MW-003-0 100-MW-004-0	784327 ====================================	9.82 ====== 10.31 10.32	587166 ===================================	12.58 ======= 13.08 13.08	584938 ======== 1543484 1721613	14.75 ===== 15.23 15.24

IS4 (PHN) = Phenanthrene-dl0

I (CRY) = Chrysene-d12
ISU (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Contract: TETRA TECH o Name: <u>CEIMIC CORP</u>

b Code: CEIMIC Case No.: CTO086 SAS No.: ____ SDG No.: 02SS02

b File ID (Standard): <u>IX013</u> Date Analyzed: 09/28/99

Time Analyzed: 2015 strument ID: MS9

		•					
		IS1 (DCB)		IS2(NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======	========	===##==
	12 HOUR STD	76145	4.87	244089	6.08	110304	8.71
	UPPER LIMIT	152290	5.37	488178	6.58	220608	9.21
	LOWER LIMIT	38072	4.37	122044	5.58	55152	8.21
		=======	======	=======	======		======
	EPA SAMPLE	. •					
	NO.	•					
	==========	========	======	========	======	=======	======
1	100-SS-01	55942	4.86	130894	6.07	81015	8.71
2	100-SS-03	47453	4.86	138360	6.07	62809	8.70
3	100-SS-04 -	54632	4.86	167507	6.08	70359	8.71
4	102-SS-03	47105	4.86	151041	6.07	74039	8.71
5	102-SS-04	55280	4.86	176200	6.07	76596	8.70
6	102-SS-05	55381	4.88	164757	6.08	67602	8.71
7	102-SU-01	50437	4.86	159884	6.07	72340	8.71
	100-SS-01MS	51660	4.87	151804	5.08	72845	8.71
	100-SS-01MSD	40367	4.85	124739	6.07	53649 *	3.70
			•				
		· '		·			

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

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[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

3C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Mame: CEIMIC CORP Contract: TETRA TECH

ab code: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 02SS02

ab File ID (Standard): IX013 Date Analyzed: 09/28/99

strument ID: MS9 Time Analyzed: 2015

			•	•			
		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	=======	======	=======	======	=======	=======
	12 HOUR STD	164927	10.40	133129	12.93	135953	14.98
	UPPER LIMIT	329854	10.90	266258	13.43	271906	15.48
	LOWER LIMIT	82464	9.90	66564	12.43	67976	14.48
	========	=======	======	========	======	=======	======
	EPA SAMPLE	. •					
	NO.						
	=========	=======	======	=======	======	=======	======
01	100-SS-01	115324	10.39	87514	12.93	88799	14.96
02	100-SS-03	93389	10.39	80406	12.92	83249	14.96
03	100-SS-04	98800	10.39	81241	12.94	81801	14.97
04	102-SS-03	123189	10.39	137631	12.94	152826	14.97
05	102-SS-04	113359	10.39	98327	12.93	103385	14.97
06	102-SS-05	106258	10.40	88615	12.93	93690	14.97
C	.02-SU-01	109379	10.39	86459	12.94	94913	14.97
ر ن 0	100-SS-01MS	112515	10.40	81455	12.93	85149	14.97
09	100-SS-01MSD	91675	10.39	37843	12.93	105015	14.97
			ļ <u></u>				

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

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AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Contract: TETRA TECH b Name: CEIMIC CORP

b Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

Date Analyzed: 09/27/99 b File ID (Standard): <u>JY631</u>

Time Analyzed: <u>1420</u> strument ID: MS10

		•					
		IS1(DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======	=======	=======
	12 HOUR STD	552176	5.12	1847650	6.53	1295396	9.12
	UPPER LIMIT	1104352	5.62	3695300	7.03	2590792	9.62
	LOWER LIMIT	276088	4.62	923825	6.03	647698	8.62
	==========	=======			======	========	======
	EPA SAMPLE						
	NO.	•					
		========	======	========	======	=======	======
01	102-SS-01	583607	5.10	1937551	6.50	1330733	9.10
02	SLCSJI	586704	5.10	1894629	5.50	1269879	9.10
03	SBLKJI .	643285	5.11	2143523	6.51	1412951	9.10
	•						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = ± 0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Mame: CEIMIC CORP Contract: TETRA TECH

ab Lode: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 02SS02

ab File ID (Standard): <u>JY631</u> Date Analyzed: <u>09/27/99</u>

nstrument ID: MS10 Time Analyzed: 1420

		* *	<i>_</i>				
		IS4 (PHN)		IS5(CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT_ #
			======	========	======	========	======
	12 HOUR STD	2627600	10.87	2649852	13.81	2933915	16.45
	UPPER LIMIT	5255200	11.37	5299704	14.31	5867830	16.95
	LOWER LIMIT	1313800	10.37	1324926	13.31	1466958	15.95
	=========	========	======	========	======		======
	EPA SAMPLE	. •					
	NO.	,					
	=========	=======	======	========	======	=======	======
01	102-SS-01	2769147	10.87	2603633	13.79	2566974	15.43
02	SLCSJI	2445580	10.87	2306670	13.80	2308295	16.43
03	SBLKJI .	2849869	10.87	2634113	13.79	2828309	16.42

IS' (PHN) = Phenanthrene-d10

I (CRY) = Chrysene-d12

ISo (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

53 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 02SS02

ib File ID (Standard): <u>JY677</u> Date Analyzed: <u>09/29/99</u>

estrument ID: MS10 Time Analyzed: 1036

		. •	,	•			
		IS1(DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======	=======	=======
	12 HOUR STD	553802	5.08	1397901	5.47	832392	9.08
	UPPER LIMIT	1107604	5.58	2795802	6.97	1664784	9.58
	LOWER LIMIT	276901	4.58	698950	5.97	416196	8.53
			======	========	======	========	======
	EPA SAMPLE					,	
İ	NO.						
		=======	======	=======	======		======
01	102-SS-02	709023	5.04	2347310	6.42	1522739	9.05
02	SLCSJQ	692983	5.05	2335472	6.43	1533407	9.05
03	SBLKJQ	523580	5.10	1803460	6.50	1232212	9.10
	•						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of OC limits.

3C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Cude: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

b File ID (Standard): <u>JY577</u> Date Analyzed: <u>09/29/99</u>

strument ID: MS10 Time Analyzed: 1036

		,	_	,			
		IS4 (PHN)		IS5(CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======	========	======		======
	12 HOUR STD	1535833	10.84	1535231	13.75	1555437	16.37
	UPPER LIMIT	3071666	11.34	3070462	14.25	3110874	15.87
	LOWER LIMIT	767916	10.34	767616	13.25	777718	15.87
			======	========	======		======
	EPA SAMPLE						
	NO.						
	==========	=======	======	========	======	========	======
1	102-SS-02	3067450	10.83	2525724	13.74	2478365	16.35
2	SLC\$JQ	3186286 *	10.83	3043291	13.73	2887521	16.35
3	SBLKJQ	2385773	10.86	2373933	13.77	2394939	15.40
	•						

IS4 (PHN) = Phenanthrene-d10

I (CRY) = Chrysene-d12

ISS (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of OC limits.

83 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

D Name: CEIMIC CORP Contract: TETRA TECH

Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 02SS02

o File ID (Standard): JY702 Date Analyzed: 09/30/99

strument ID: MS10 Time Analyzed: 1023

			,	•			
		IS1(DCB)		IS2 (NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	========	======		======	=========	========
	12 HOUR STD	413890	5.11	1403401	6.51	957464	9.08
	UPPER LIMIT	827780	5.61	2306802	7.01	1914928	9.58
	LOWER LIMIT	206945	4.51	701700	6.01	478732	8.58
	=========	========		========	======		======
	EPA SAMPLE						
	NO.						
	=======================================	=======	======	========	======		======
01	100-22-DD	685960	5.05	2255938	6.43	1520361	9.04
02	100-SS-02	772171	5.04	2567906	6.41	1648457	9.03
		_					

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d3

IS3 (ANT) = Acenaphthene-dl0

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = ± 0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ib Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 02SS02

b File ID (Standard): JY702 Date Analyzed: 09/30/99

strument ID: MS10 Time Analyzed: 1023

				•			
		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	==========	========	======	========	======	========	========
	12 HOUR STD	1977231	10.83	1848295	13.76	1707054	16.36
	UPPER LIMIT	3954462	11.33	3696590	14.26	3414108	15.85
	LOWER LIMIT	988616	10.33	924148	13.25	853527	15.86
	=======================================		======	=========	======	========	======
	EPA SAMPLE						
	NO.						
	=========	=======		========	======	========	======
	100-22-DD	3098981	10.81	3113579	13.71	2994598	15.28
01				0000445	1 2 2 2 2	2621222	3 6 3 3
01	100-SS-02	3251346	10.81	2822447	13.70	2671373	16.28
1	100-22-DD					_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

IS4 (PHN) = Phenanthrene-d10

ISF (CRY) = Chrysene-dl2
I (PRY) = Perylene-dl2

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

>

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

PESTICIDE ANALYSES

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit		
Tetrachloroethene	ND	l		
1,1,2,2-Tetrachloroethane	ND	1		
tene	ND	1		
vorobenzene	ND	1		
Ethylbenzene	ND	1		
Styrene	ND	t ·		
Total Xylenes	ND	t		

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	93	62 - 139	
Dibromofluoromethane	98	75 - 125	
Toluene-d8	110	75 - 125	
Bromofluorobenzene	107	75 - 125	

•	· ' <i>y</i> '	- / /
		\mathcal{L}
Reported by:	V	Approved by: \mathcal{U}
• • • • • • • • • • • • • • • • • • • •		

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	l
Methylene Chloride	ND	1
Acetone	· ND	5
Carbon Disulfide	ND	· I
1,1-Dichloroethene	ND	ĺ
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone ·	ND	5
4-Methyl-2-Pentanone	ND	5

|--|

VOLATILE ANALYSES

CEMIC CORPORATION Sample Receiving Checklist

LIMS A	.99080 /	Cooler Number:	1-3
Client:	Tetra Tech	Number of Coolers:	3
Project	NAS Pensacola	Date Received: 9	11.99
	a u	99	·
A.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened:	<u> </u>	C. —
1.	Have designated person initial here to acknowledge receipt of cooler:	_(dute):///	<u>7</u> 9
2.	Did cooler come with a shipping slip (airbill, etc.)?		\sim
	If YES, enter carrier name & airbill number here: tede X		
3.	Were custody seals on outside of cooler?		YES NO
.	How many & where: 1, faint seal date: 9 10 : 99	scal name FNO	
4.	Were custody seals unbroken and intact at the date and time of arrival		NES NO
5.	Did you screen samples for radioactivity using a Geiger Counter?		YES NO
5. 5.	Chain of Custody #: 0464		
7.	Were custody papers sealed in a plastic bag & taped inside to the Ed'		(YES) XO
S .	Were custody papers filled out properly (ink, signed, etc.)?		YES
9.	Did you sign custody papers in the appropriate place?		YES NO
10.	Was project identifiable from custody papers?	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	YES(NO
11.	If required, was enough ice used?	Type of ice: Hve	(YES XO
В.	LOG-IN PHASE: Date samples were logged-in: 9 / 13 : 99		
υ.	by (print): Amy St. Sohn (sign): (17)	It Ich	10
		20.07.10	K I
12.	Describe type of packing in cooler:)	
13.	Were all bottles sealed in separate plastic bags?		(YES NO
14.	Did all bottles arrive unbroken and were labels in good condition?		YES NO
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?		(YES NO
16.	Did all bottle labels agree with custody papers?		YES(NO)
17.	Were correct containers used for the tests indicated?		YES NO
18.	Were samples received at the correct pH?		(YES) NO
19.	Was a sufficient amount of sample sent for tests indicated?	***************************************	(YES)40
20.	Were bubbles absent in VOA samples? If NO, list by sample#: F609/099-01	1- 1BU91099-01	YES NO
	Laboratory labelling verified by: (Initials): (date): / /		•

(12)

Chain of C stody

Original Chain of Custc oes to Laboratory

990807)

0454

Cooler Temp. Project # Project Name Analyses NAS Pensacola OLFBrown. CTO 0086 Samplers (please print) Cooler # Lab Sample No. of Comp ID. Grab Matrix Time Sample Identification Container ρH Remarks X 12456 X 4/10 1130 Y Dup. X X X X X X 8 X X K 0920 Field X 9/10/12106 8. γ Blank 10 FB \$91099-01 Equir. 4/10 ER \$91699-01 1435 Ca 8 X K:45= Trip Blunk TB \$91\$99-01 Z 4/10 W 0900 Date/Time Relinguished by (sig/fature) Date/Time Received by (signature) Ceimic Project # 9/10/99 1800 Date/Time Date/Time Received by (signature) Retinguished by (signature) Received by Ceimic (signature) Date/Time Relinquished by (signature) Remarks:

CHAIN OF CUSTODY

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck Tetra Tech NUS Foster Plaza VII 661 Andersen Dr. Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D Laboratory Manager

NP/djj

cc:

Enclosures

Mr. Terry Hansen
Tetra Tech NUS

1311 Executive Center Dr.

Ellis Bldg.

Suite 220

Tallahassee, FL 32301

Mr. Arnold Lamb

Tetra Tech NUS

794 S. Military Trail

Deerfield Beach, FL 33442

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LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

	Aqu	ieous (ug/I	.)		Solid (mg/kg)						
Analyte	True	Found &R		True	Found	c	Limits	8R			
Antimony	500.0	453.52	90.7	l		T					
Arsenic	200.0	181.71	90.9	1	1	Π					
Cadmium	100.0	85.84	85.8					1			
Lead	200.0	175.02	87.5		T	1					
Selenium	200.0	185.06	92.5	ł							
Silver	1250.0	1138.50	91.1			П					
Thallium	200.0	175.64	87.8		1						

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LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807

SAS No.:

SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

	Aqu	eous (ug/	Solid (mg/kg)						
Analyte	True	Found	%R	True	Found	С	Limits	8R	
Aluminum	10000.0	9660.60	96.6			11	1		
Barium	10000.0	8989.20	89.9			T			
Beryllium	250.0	241.13	96.5			1			
Calcium	25000.0	24334.00	97.3		1	11			
Chromium	1000.0	923.29	92.3		1				
Cobalt	2500.0	2266.90	90.7						
Copper	1250.0	1104.50	88.4		ļ	T	1		
Iron	5000.0	4833.20	96.7						
Magnesium	25000.0	24312.00	97.2		ļ	1			
Manganese	2500.0	2280.20	91.2		1	1			
Nickel	2500.0	2234.90	B9.4						
assium	25000.0	22620.00	90.5						
Scaium	25000.0	24776.00	99.1						
Vanadium	2500.0	2377.40	95.1						
Zinc	2500.0	2240.30	89.6						
Canida	१००	77,59	47.5						

TOTAL METALS AND CYANIDE - 3 BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.:

SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			Con	Preparation Blank							
Analyte	(ug/L)	С	1	С	2	С	3	С		С		м
Cyanide	10.0	ט כ	10.0	וטן	10.	0 0		1	5.000	ט		c l

BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank				ontinuing C Blank (u	Preparation Blank					
Analyte	(ug/L)	С	1	С	2	С	3	С	С		м
Antimony	2.6	U	2.6	U	2.6	U	2.6	υ	2.600 U	Ш	P
Arsenic	3.6	U	3.6	U	3.6	ט	3.6	U	3.600 0	П	₽
Cadmium	0.4	U	0.4	ט	0.4	ַט	0.4	υ	0.430 U	П	P
Lead	2.7	U	2.7	U	2.7	U	2.7	υ	2.700 U	П	P
Mercury	<u> </u>		0.14	U	0.14	ט	0.14	U	0.140 U	\coprod	ΑV
Selenium	3.3	В	2.1	U	2.1	U	2.8	В	2.100 U	П	P
Silver	3.7	U	3.7	U	3.7	U	3.7	U	3.700 U		₽
Thallium	4.4	ַ ט	4.4	U	4.4	ט	4.4	U	4.400 U	П	₽

BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807

SAS No.:

SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	С	1	Co C	ntinuing C Blank (u 2			С	Preparation Blank	С	м	1
Aluminum			41.0	U	41.0	U	42.3	В	141.000	В	P	
Barium			16.4	В	12.4	В	17.4	В	9.910	В	P	,
Beryllium		1_1	0.4	U	-0,4	В	0.4	U	0.430	В	P	,
Calcium			-127.3	В	170.1	В	-254.8	В	495.000	В	l P	>
Chromium			-10.9	В	-11.8	В	-9.9	В	5.710	В	P	,
Cobalt			7.1	В	5.7	В	8.5	В	15.600	В	P	,
Copper		11	-4.7	В	-6.6	В	-4.7	В	13.000	В	P	2
Iron			40.0	וט	40.0	ט	40.0	U	40.000	U	P	,
Magnesium		11	119.0	u	133.7	В	119.0	U	551.000	В	l P	,
Manganese			3.0	u	3.0	ן ט	3.0	U	3.000	ี บ	P	>
Nickel		11	-24.4	В	-31.9	В	-23.9	В	-11.960	В	P	,
Potassium			222.0	ט	314.8	В	286.8	В	620.000	В	F	?
Sodium			57.0	U	133.2	В	57.0	U	570.000	В	P	>
Vanadium			5.3	В	2.8	טן	2.8	U	18.500	В	F	2
Zinc			5.5	U	5.5	ט	5.5	U	16.800	В	F	2

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.:

091099

Matrix (soil/water): WATER

Lab Sample ID: 990807-02

Level (low/med): LOW

Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Ω	м
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	ט		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	В		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	Ų	1	P
7440-50-8	Copper] 3.8	U	l	P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U	l	P
7439-92-1	Lead	2.7	U	l	P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	ט	1	P
7439-97-6	Mercury	0.18	U	1	AV
7440-02-0	Nickel	6.3	U	l	P
7440-09-7	Potassium	222	U	1	P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	ט	l	P
7440-23-5	Sodium	293	В	1	P
7440-28-0	Thallium	4.4	U	•	P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	18.5	В	Ī	P

Cr t Before:

COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.:

091099

Matrix (soil/water): WATER

Lab Sample ID: 990807-01

Level (low/med): LOW

Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	Ü		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	12.9	В		P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.43	U	İ	P
7440-70-2	Calcium	333	В		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U	1	P
	Cyanide	5.0	U	1	c
7439-89-6	Iron	40.0	U	ļ	P
7439-92-1	Lead	2.7	U	l	P
7439-95-4	Magnesium	119	U	l	P
7439-96-5	Manganese	3.0	U	1	P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U	Ī I	P
7440-09-7	Potassium	246	В	l	P
7782~49-2	Selenium	2.3	В		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	385	В		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	3.8	В		P
7440-66-6	Zinc	14.0	В		P

Color Before: COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

Form I - IN

TOTAL METALS AND CYANIDE - Cover Page INORGANIC ANALYSIS DATA PACKAGE

Coi ct: Out	claying Landing Field Bronson Pe	LYSIS DATA PACKA	SDG No.: 091099	
Lab Code: CEIM	IC Case No.: 99	90807	SAS No.:	
SOW No.: ILM04.	0			
	Sample No.	Ich Samle ID	A	Personal
		Lab Sample ID	·	
	FB091099-01 ER091099-01	990807-01 990807-02		

Were ICP inter	element corrections applied?		Yes/No YES	
			165/110	
_ Were ICP backg	round corrections applied?		Yes/No YES	
_	re raw data generated before		•	
	on of background corrections?		ON oN\zeY	
	-		***************************************	
Comments:				
				-
Cortify that	this data package is in compli	ance with the term	e and conditions of the	
_	technically and for completene			
	e of the data contained in this			
-	ble data submitted on floppy di			Y
Manager or the	Manager's designee, as verifie	d by the following	signature.	
	while the state of	_		
ignure:	NAVER DOTTANELL	Name:	VALO JORTORELLI	
	Dorald Fortouth	Name: Dong		
	/ /		, , ,	

METAL ANALYSES

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CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

F	Project#:	90807	1.	Analyt	ical M	cthod: _	307	3 <i>2</i> i					Surt. So	il. ID:	7 W99	107 rs	B		Prep Dat	te/Time:	091 15/9
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ī	Blank ID: P	0091534				00911							Vqqr,1 2	pike ID:			····		Matrix:	9	means
ſ												E	XTRAC	T ÇLEA	N-UP S	ECTION	1		INIT &	DATE	
١	IDENTI	FICATION		,	EXT	RACTIO	N SEC	TION	·			GC/MS				GC/LC	1		TRAN	SFER	COMMENTS
1			Vol	Surr	MS					Final	Clean	Post		Clean	Post		Post		661	201	
	Client ID	Ceimie ID	W((ml/g)	Vol (µl)	Í	% Moist	Hq	Acid pH	Basic pH	Ext Voi•	Uր Vol∙	Clean	Vol Trans*	Up Vol*	Clean Vol*	l·lorini Vol•	Florisii Vol*	Vol Trans*	GC/ MS	GC/ LC	
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	Final Solvent	ID:		Super	visor l	nit: 🌃	<u> </u>		***************************************	+				_ [GPC	X Y	Z				•
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IDEN	TIFICATION			EXT	RACTIO	ON SEC	TION				E GC/MS		T CLEA	N-UP S	ECTIOI GC/LC			INIT &	- 1	COMMENTS
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (μl)	% Moist	pil	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean	Vol Trans*	Clean Up Vol*	Post Clean Vol*		Post Florisil	j	GC/	GC/ L.C	
FBC 11099 -	97080701	102n 1	iml	-	Pitala		1.41	,	10 m	• • • • • • • • • • • • • • • • • • • •			1,47			7 (1)	1mp	T,	AB MBI/F	
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	n ID: <u>NÜ 303</u> Ç		Sodiur	n Sulfa visor Ir	ite Lot # nit:	AC.			Reagent		l valum	cs are in	milliliter	•	nless oth		oted.	Com	ment Co	des:
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LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed:

09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)=
Aroclor-1016	5 .0	5.2	104	30 - 150
Aroclor-1260	5.0	5.3	106	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

* These limits are provided for advisory purposes.

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Reported by:	10	Approved by:	<u> </u>

METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: P0915-B4

Date Sample Extracted: 09/15/99

Matrix: Aqueous

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroctor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

Surrogate Compound		Recovery(%)	QC Limits(%)*
Tetrachioro-m-xylene		95	56 - 111
Decachlorobiphenyl	•	85	34 - 129

^{*} These limits are provided for advisory purposes.

\mathcal{C}		\mathcal{A}
Reported by:	Approved by:	Y -

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

C	lient:	Tetra	Tech	NUS
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Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
Aroclor-1016	ND	1.0	
Argolor-1221	ND	2.0	
or-1232	ND	1.0	
Aroclor-1242	ND	1.0	
Aroclor-1248	ND	1.0	
Aroclor-1254	ND	1.0	
Aroclor-1260	ND	1.0	

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*		
Tetrachloro-m-xylene	90	56 - 111		
Decachlorobiphenyl	65	34 - 129		

^{*} These limits are provided for advisory purposes.

Re,	ed by:	Approved by:
!		Approved by:

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: I

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	· ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Compound		Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	•	105	56 - 111
Decachlorobiphenyl		75	34 - 129

* These limits are provided for advisory pur	poses
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Reported by:	Approved by:
•	-

PCB ANALYSES

		:						CI	EIMIC	CORP	ORAT	ION								
		İ			Org	zanie P	repara	ition L	aborat	ory / Sa	mple P	reparat	ion Ben	ch She	els	,				
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Blank ID:	000130				70091								spike ID:					Matrix:	99	WIEN.
				,-10-11-11-11-11-11-11-11-11-11-11-11-11-							E	EXTRAC	TCLEA	N-UP S	ECTIO	1			DATE	
IDENT	IFICATION	:		EXT	RACTIO	N SEC	TION				GC/MS				GC/LC			TRAN	SFER	COMMENTS
		Vo!/	Surr	MS					Final	Clean	Post		Clean	Post		Post				
Client	Ceimic	W۱	Val	Vol	%		Į	Basic	Ext	∪ր	Clean	Val	Մբ		Florisit	1	1	GC/	GC/	
ID	ID	(ml/g)	(µl)	(µ1)	Moist	pH	pH	ρH	Vol•	Vn1*	Vol*	Trans*	Vol*	Vol*	Vol*	Vol*		MS	LC	
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Final Solvent	ID:	-	Super	visor I	nit: dded By:	AC.	<u></u>		Keagem	13 103.				lapc	Х Ү	7		Com	unent Co	des:
	ot #:		Surro	gale Ar	dded By:	17.1	1		***************************************				_ =	Silica		-	-	RE:	= Reextr	m c l
Prepared by:	- Jim		Witne	ssed B	y:	× ./			***************************************				~ <u>\</u>	Florisit			ļ	H	2nd Alic	
	'\				J.	1		_							Lot #:		,			1

LABORATORY CONTROL SUMMARY ORGANOCHLORINE PESTICIDES

by SW846 Method 8080

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/29/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan 1	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
1.4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.35	70	69 - 137
1.4'-DDD	0.50	0.43	86	49 - 141
tosulfan Sulfate	0.50	0.44	88	51 - 144
DDT	0.50	0.43	86	64 - 146
wethoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*		
Tetrachloro-m-xylene	. 70	56 - 111		
Decachlorobiphenyl	80	34 - 129		

^{*} These limits are provided for advisory purposes.

Reported by: _______ Approved by: _______

METHOD BLANK ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS Blank ID: P0915-B1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99 Date Sample Analyzed: 09/29/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit		
alpha-BHC	ND	0.050		
beta-BHC	ND	0.050		
delta-BHC	ND	0.050		
gamma-BHC	ND	0.050		
Heptachlor	ND	0.050		
Aldrin	ND	0.050		
Heptachlor Epoxide	ND	0.050		
Endosulfan I	ND	0.050		
Dieldrin	ND	0.10		
4,4'-DDE	ND	0.10		
Endrin	ND	01.0		
Endosulfan II	ND	0.10		
4,4'-DDD	ND	0.10		
Endosulfan Sulfate	ND	0.10		
4,4'-DDT	ND	0.10		
Methoxychlor	ND	0.50		
Endrin Ketone	ND	0.10		
Endrin Aldehyde	· ND	0.10		
alpha-Chlordanc	ND	0.050		
gamma-Chlordane	ND	0.050		
Toxaphene	ND	5.0		
Aroclor-1016	ND	1.0		
Aroclor-1221	ND	2.0		
Aroclor-1232	ND	1.0		
Aroclor-1242	ND	1.0		
Aroclor-1248	ND	1.0		
Aroclor-1254	ND	1.0		
Aroclor-1260	· ND	1.0		

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	85	56 - 111	
Decachlorobiphenyl	75	34 - 129	

^{*} These limits are provided for advisory purposes.

10	$\mathcal A$
Reported by:	Approved by:

TARGET COMPOUND LIST ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99
Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
d¢lta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
1,4'-DDD	ND	0.10
Fulfan Sulfate	ND	0.10
(in the contract of the contra	ND	0.10
dethoxychlor	ND	0.50
Endrin Ketone	. ND	0.10
Endrin Aldehyde	ND	0.10
lpha-Chlordane	ND	0.050
amma-Chlordane	ND	0.050
Toxaphene	ND	5.0
\rocior-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	. 80	56 - 111	
DecachlorobiphenyT	60	34 - 129	

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:
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TARGET COMPOUND LIST ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 10/04/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	. ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin •	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4.4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	. ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordanc	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	0.1
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	· ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	. 80	56 - 111	
Decachlorobiphenyl —	55	34 - 129	

^{*} These limits are provided for advisory purposes.

Reported by: ______ Approved by: ______

PESTICIDE ANALYSES

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

	And the second s	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
-	======================================	========	======	========	======	========	======
	12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
	UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
	LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
		========	======	========	======	========	
	EPA SAMPLE						
İ	NO.						
	==========	========			======	========	======
01	ER091099-01	2180804	10.32	1422919	13.08	1395791	15.24
02	FB091099-01	3276900 *	10.32	2598391 *	13.08	2742870 *	15.24
Ì							

IS4 (PHN) = Phenanthrene-d10

ISS (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

La lame: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========		======	_========	======		======
	12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
	UPPER LIMIT	878390	5.12	2800152	6.28	1605618	8.99
	LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
	=========						======
	EPA SAMPLE						
	NO.						
	=========		======		======	========	======
1	ER091099-01	697849	4.62	2415481	5.79	1331022	8.49
2	FB091099-01	964450 *	4.62	3435530 *	5.79	1932269 *	8.49
						·	

IS1 (DCB) = 1,4-Dichlorobenzene-d4

rs2 (NPT) = Naphthalene-d8

3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of OC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS4 (PHN)		IS5 (CRY)		IS6(PRY)	-
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	========	======	========	======	========	======
	12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
	UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
	LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
	==========	========	======	========	======	========	======
	EPA SAMPLE						
	NO.						
Î	=======================================	========	======	========	======	========	======
01	SLCSDH	1667254	10.36	1398697	13.14	1318354	15.33
02	SBLKDH	1970726	10.36	1312192	13.13	1325168	15.33
- 1					١	·	·

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

La Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS1 (DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	========		=========	======	========	
	12 HOUR STD	548821	4.65	1854821	5.83	1063350	8.54
	UPPER LIMIT	1097642	5.15	3709642	6.33	2126700	9.04
	LOWER LIMIT	274410	4.15	927410	5.33	531675	8.04
		========		========	======	========	======
	EPA SAMPLE						
	NO.						
			======			========	======
01	SLCSDH	468717	4.63	1669235	5.80	972577	8.53
02	SBLKDH	688381	4.64	2304712	5.81	1202037	8.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

33 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Lab File ID: DW975

Lab Sample ID: S0915-B6

Instrument ID: MS4

Date Extracted: 09/15/99

Matrix: (soil/water) WATER

Date Analyzed: 09/22/99

Level: (low/med) LOW

Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
		=======================================		
01	ER091099~01	990807-02	D W99 7	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

Laboratory Control Spike Summary

			CONC		RECOVERY
CODE	CAS NO	COMPOUND	SPIKED	· CONC	<u> </u>
C540	208-9 6 -8	Acenaphthylene	50.00	32.78	6 5.56
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54
C545	99-09 - 2	3-Nitroaniline	50.00	34.16	68.32
C550	83-32-9	Acenaphthene	50.00	33.32	66.64
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38
C5 6 0	100-02-7	4-Nitrophenol	50.00	22.39	44.78
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26
C590	86-73-7	Fluorene	50.00	34.85	69.70
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92
C640	85-01-8	Phenanthrene	50.00	36.90	73.80
C645	120-12-7	Anthracene	50.00	36.51	73.02
C646	86-74-8	Carbazole	50.00	37.84	75.68
C(84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12
C	206-44-0	Fluoranthene	50.00	38.99	77.98
	129-00-0	Pyrene	50.00	36.00	72.00
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92
C725	91 -94- 1	3,3'-Dichlorobenzidine	50.00	29.56	59.12
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04
C740	218-01-9	Chrysene	50.00	37.05	74.10
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.6 3	71.26
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88
C775	50-32-8	Benzo(a) Pyrene	50.00	36.68	73.36
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82

page 1

Laboratory Control Spike Summary

LAB SAMP ID LAB QC ID	S0915-LCS6			DATA	RELEASE	AUTHORIZE D	BY
STANDARD	DW967	EXTRACTED	09/15/99 09/22/99		FRACTIO	T MS4	
% MOISTURE (DECANTED) DIL FACTOR SAMPLE: CONDITIONS:	1.000	pH CLEANUP EXTRACT METHOD			MATRI	L <u>LOW</u> X <u>WATER</u> S <u>uq/L</u>	

CODE	CAS_NO	СОМРОИИД	CONC SPIKED	CONC	RECOVERY
C315	100 05 2	Phenol	50.00	18.36	36.72
C315 C325	108-95-2 111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08
C325	95-57-8	2-Chlorophenol	50.00	27.04	54.12
· ~ C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-46-7	Benzyl Alcohol	50.00	31.77	63.54
C345	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20 - 3-	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52
C5 20	95-95-4	2,4,5-Trichlorophenol	50.°60	33.85	67 .70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38

2C WATER SEMIVOLATILE SURROGATE RECOVERY

Lar ame: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099

	CDA	S1	S2	S3	S4	S5	S6	S7	C 0	TOT
	EPA								S8	TOT
	SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#	(2CP)#	(DCB)#	OUT
	=========	=====	=====	=====	=====	=====	=====	=====	=====	===
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

				Q	C LIMILS	
S1	(NBZ)	=	Nitrobenzene-d5	(35-114)	
S2	(FBP)	=	2-Fluorobiphenyl	(43-116)	
S3	(TPH)	=	Terphenyl-d14	(33-141)	
S4	(PHL)	=	Phenol-d5	(10-100)	
			2-Fluorophenol		21-125)	
S6	(TBP)	=	2,4,6-Tribromophenol	(25-134)	
S7	(2CP)	=	2-Chlorophenol-d4	(33-110)	(advisory)
S8	(DCB)	=	1,2-Dichlorobenzene-d4	(16-110)	(advisory)

[#] Column to be used to flag recovery values

^{*} Values outside of contract required QC limits

D Surrogate diluted out

1X ORGANICS ANALYSIS DATA SHEET

SBLKDH

Lab Name: <u>CEIMIC CORP</u>	· · · · · · · · · · · · · · · · · · ·	Contract: TETR	A_TECH_		
Lab Code: <u>CEIMIC</u> Ca	se No.: <u>CT0086</u>	SAS No.:	SDG	No.:	091099
Matrix: (soil/water) <u>W</u>	ATER	Lab S	ample ID:	<u>S091</u>	.5-B6
Sample wt/vol: <u>1</u>	000 (g/mL) ML	Lab F	ile ID:	<u>DW97</u>	'5
Level: (low/med) <u>L</u>	OW	Date	Received:		-
% Moisture: d	ecanted: (Y/N) <u>N</u>	Date	Extracted:	09/1	.5/99
Concentrated Extract V	olume: <u>1000</u> (uL) Date	Analyzed:	09/2	2/99
Injection Volume: _	2.0 (uL)	Dilut	ion Factor	:	1.0
GPC Cleanup: (Y/N) <u>N</u> CAS NO.	_	CONCENTRATI		-	Q
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 118-74-1 87-86-5-3 120-12-7 86-74-8 120-12-7 86-74-8 129-00-0 85-68-7 91-94-1 56-55-3 218-01-9 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3	-2,4-Dinitrophenol -4-Nitrophenol -Dibenzofuran -2,4-Dinitrotolue -Diethylphthalate -4-ChlorophenylFluorene -4-Nitroaniline -4,6-Dinitro-2-Me -N-NitrosodiphenylHexachlorobenzee -Pentachlorophene -Pentachlorophene -Phenanthrene -Anthracene -Carbazole -Di-n-Butylphtha -Fluoranthene -Pyrene -Butylbenzylphtha -3,3'-Dichlorobee -Benzo(a)Anthrace -Chrysene -bis(2-Ethylhexy) -Di-n-Octyl Phtha -Benzo(b)Fluoran	ene_ephenylether_ethylphenol_ylamine (1) henylether_ne_ol_elate_nzidine_ene_l) Phthalate_alate_thene_thene_hracene		5 5 10 10 5 5	מטמממטלמטממטלמטמטמטטטטטטטטטטטטטטטטט

			SBLKDH
I Name	: CEIMIC CORP	Contract: <u>TETRA_TECH</u>	

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: <u>DW975</u>

Date Received: _____ Level: (low/med) LOW___

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: <u>09/22/99</u>

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q

	J. J	
108-95-2Phenol	5	U
111-44-4bis(2-Chloroethyl)Ether		U
95-57-82-Chlorophenol		บ
541-73-11,3-Dichlorobenzene		บ
106-46-71,4-Dichlorobenzene	— 5 5	บ
100-51-6Benzyl Alcohol	5	U
95-50-11,2-Dichlorobenzene		Ü
95-48-72-Methylphenol	— 5 5	U
108-60-12,2'-oxybis(1-Chloropropane	5	Ū
106-44-54-Methylphenol	7- 5	ט
621-64-7N-Nitroso-Di-n-Propylamine		U
67 77 1 Howard oroothans		ŭ
67-72-1Hexachloroethane		$\begin{bmatrix} \Omega \\ \end{bmatrix}$
98-95-3Nitrobenzene	5	1 - 1
78-59-1Isophorone	5	U
88-75-52-Nitrophenol	5	U
105-67-92,4-Dimethylphenol	5	Ü
65-85-0Benzoic Acid	5	[U]
111-91-1bis(2-Chloroethoxy)Methane	5	U
120-83-22,4-Dichlorophenol	5	Ŭ
120-82-11,2,4-Trichlorobenzene	5	ן ט
91-20-3Naphthalene	5	U
106-47-84-Chloroaniline	5	U
87-68-3Hexachlorobutadiene	5	ט
59-50-74-Chloro-3-Methylphenol	5	ט
91-57-62-Methylnaphthalene	5	U
77-47-4Hexachlorocyclopentadiene	5	ט
88-06-22,4,6-Trichlorophenol	5	ן ט
95-95-42,4,5-Trichlorophenol	10	ט
91-58-72-Chloronaphthalene	5	U
88-74-42-Nitroaniline	10	Ü
131-11-3Dimethyl Phthalate		lu l
208-96-8Acenaphthylene		Ü
606-20-22,6-Dinitrotoluene	 5	ט
500-20-22, 6-Difficioloidelle		
		I

SLCSDH

Lab Name: CEIMIC COR	P	Contract: TETRA		PICSDH
Lab Code: CEIMIC	Case No.: <u>CT0086</u>	SAS No.:	SDG No	.: 091099
Matrix: (soil/water)	WATER	Lab Sa	ample ID: <u>S</u> (0915-LCS6
Sample wt/vol:	1000 (g/mL) ML	_ Lab Fi	ile ID: <u>D</u>	N976
Level: (low/med)	LOW	Date F	Received: _	and the state of t
% Moisture:	decanted: (Y/N) I	<u>N</u> Date F	Extracted: 09	9/15/99
Concentrated Extract	Volume:1000	(uL) Date A	nalyzed: 09	9/22/99
Injection Volume:	<u>2.0</u> (uL)	Diluti	on Factor:	1.0
GPC Cleanup: (Y/N) CAS NO.	N pH:	CONCENTRATIO		Q
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 85-01-8 120-12-7 86-74-8 120-12-7 84-74-2 206-44-0 129-00-0 85-68-7 91-94-1 56-55-3 218-01-9 117-81-7 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3	4-Nitroaniline4,6-Dinitro-2-N4,6-Dinitro-2-N4-Bromophenyl-p4-Bromophenyl-pPentachloropherPhenanthreneCarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphtha3,3'-Dichlorobe	mol	34 33 32 34 35 35 35 37 38 39 36 30 38 37 38 39 36 30 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 37 38 38 38 38 38 38 38 38 38 38 38 38 38	В

1X ORGANICS ANALYSIS DATA SHEET

SLCSDH

L Name: <u>CEIMIC COR</u>	P Contrac	t: <u>TETRA_TECH</u>	
Lab Code: <u>CEIMIC</u>	Case No.: <u>CTO086</u> SAS No	.: SDG No.: <u>091099</u>	
Matrix: (soil/water)	WATER	Lab Sample ID: S0915-LCS6	
Sample wt/vol:	1000 (g/mL) ML	Lab File ID: <u>DW976</u>	
Level: (low/med)	LOW	Date Received:	
% Moisture:	decanted: (Y/N) N	Date Extracted: 09/15/99	
Concentrated Extract	Volume:1000(uL)	Date Analyzed: 09/22/99	
Injection Volume:	2.0 (uL)	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) CAS NO.	CONC	ENTRATION UNITS: L or ug/Kg) <u>UG/L </u>	
95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 98-95-3 98-95-3 105-67-9 111-91-1 120-83-2 111-91-1 120-83-2 1106-47-8 91-20-3 91-57-6 91-57-6 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	bis(2-Chloroethyl)Ether2-Chlorophenol	27 25 24 32 25 27 29 28 mine 29 24 30 31 32 22 29 mane 32 29 26 28 1 34 32	

FB091099-01 Contract: TETRA TECH Lab Name: CEIMIC CORP Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099 Matrix: (soil/water) WATER Lab Sample ID: 990807-01 1000 (g/mL) ML Sample wt/vol: Lab File ID: DW996 Level: (low/med) LOW Date Received: 09/11/99 å Moisture: decanted: (Y/N) N Date Extracted: 09/15/99 Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/23/99 Dilution Factor: 1.0 Injection Volume: <u>2.0</u>(uL) GPC Cleanup: (Y/N) N___ pH: ___ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> 0 99-09-2----3-Nitroaniline 10 U 83-32-9-----Acenaphthene 5 U 51-28-5----2,4-Dinitrophenol 10 U 100-02-7----4-Nitrophenol 10 U 132-64-9-----Dibenzofuran 5 Ū 121-14-2-----2,4-Dinitrotoluene 5 U 5 84-66-2-----Diethylphthalate U 5 7005-72-3----4-Chlorophenyl-phenylether U 86-73-7-----Fluorene 5 U 100-01-6-----4-Nitroaniline 10 U 534-52-1----4,6-Dinitro-2-Methylphenol U 10 86-30-6-----N-Nitrosodiphenylamine (1) 5 U 101-55-3-----4-Bromophenyl-phenylether 5 U 118-74-1-----Hexachlorobenzene 5 U 87-86-5-----Pentachlorophenol 10 U 85-01-8-----Phenanthrene 5 U 5 120-12-7-----Anthracene U 86-74-8------Carbazole 5 U 5 84-74-2-----Di-n-Butylphthalate U 206-44-0-----Fluoranthene 5 U 5 129-00-0-----Pyrene U 85-68-7-----Butylbenzylphthalate 5 U 91-94-1----3,3'-Dichlorobenzidine 5 U 56-55-3-----Benzo(a)Anthracene 5 U 5 U 218-01-9-----Chrysene 117-81-7-----bis(2-Ethylhexyl)Phthalate 1 BJ 5 117-84-0-----Di-n-Octyl Phthalate U 205-99-2-----Benzo(b) Fluoranthene 5 U 207-08-9-----Benzo(k)Fluoranthene 5 U

5

5

5

U

U

U

50-32-8-----Benzo(a) Pyrene

193-39-5----Indeno(1,2,3-cd) Pyrene

191-24-2-----Benzo(g,h,i)Perylene

53-70-3-----Dibenzo(a,h)Anthracene

1X ORGANICS ANALYSIS DATA SHEET

FB091099-01
L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTOO86 SAS No.: SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N ___ Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

the net to the total tot	,g, <u>33, 3</u>	~
108-95-2Phenol	5	U
111-44-4bis(2-Chloroethyl)Ether	5	Ū
95-57-82-Chlorophenol	5	Ū
541-73-11,3-Dichlorobenzene	5	Ū
106-46-71,4-Dichlorobenzene	5	บ
100-51-6Benzyl Alcohol	5	U
95-50-11,2-Dichlorobenzene	5	U
95-48-72-Methylphenol	5	υ
108-60-12,2'-oxybis(1-Chloropropane)	5	υ
106-44-54-Methylphenol	5	U
621-64-7N-Nitroso-Di-n-Propylamine	5	υ
67-72-1Hexachloroethane	5	U
98-95-3Nitrobenzene	5	U
78-59-1Isophorone	5	υ
88-75-52-Nitrophenol	5	υ
105-67-92,4-Dimethylphenol	5	U
65-85-0Benzoic Acid	5	U
111-91-1bis(2-Chloroethoxy)Methane	5	ט
120-83-22,4-Dichlorophenol	5	U
120-82-11,2,4-Trichlorobenzene	5	U
91-20-3Naphthalene	5	U
106-47-84-Chloroaniline	5	U
87-68-3Hexachlorobutadiene	5	ט
59-50-74-Chloro-3-Methylphenol	5	U
91-57-62-Methylnaphthalene	5	Ü
77-47-4Hexachlorocyclopentadiene	5	U
88-06-22,4,6-Trichlorophenol	5	U
95-95-42,4,5-Trichlorophenol	10	U
91-58-72-Chloronaphthalene	5	U
88-74-42-Nitroaniline	10	U
131-11-3Dimethyl Phthalate	5	U
208-96-8Acenaphthylene	- 5	U
606-20-22,6-Dinitrotoluene	5	U
· · · · · · · · · · · · · · · · · · ·		
	1	· ———

1X ORGANICS ANALYSIS DATA SHEET

ER091099-01

Lab Name: <u>CEIMIC COR</u>	P	Contract: TETRA	A_TECH		
Lab Code: <u>CEIMIC</u>	Case No.: CTO086	SAS No.:	SDG	No.:	091099
Matrix: (soil/water)	WATER	Lab Sa	ample ID:	9908	307-02
Sample wt/vol:	1000 (g/mL) ML	. Lab Fi	ile ID:	<u>DW99</u>	7
Level: (low/med)	LOW	Date F	Received:	09/1	1/99
% Moisture:	decanted: (Y/N) N	Date A	Extracted:	09/1	.5/99
Concentrated Extract	Volume:1000(uL) Date A	Analyzed:	09/2	23/99
Injection Volume:	<u>2.0</u> (uL)	Diluti	ion Factor	:	1.0
GPC Cleanup: (Y/N) CAS NO.		CONCENTRATIO			Q
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 87-86-5 87-86-5 120-12-7 84-74-8 120-12-7 84-74-8 129-00-0 85-68-7 117-84-0 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3	4-Nitroaniline4,6-Dinitro-2-MN-Nitrosodiphen4-Bromophenyl-pHexachlorobenzePentachlorophenPhenanthreneAnthraceneCarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphtha3,3'-Dichlorobe	ene_ephenylether_ethylphenol_ylamine (1) henylether_ne ol		5 5 5 5 10 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ממממממממממממממממממממממממממ

ER091099-01

La Jame: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099 Matrix: (soil/water) WATER Lab Sample ID: 990807-02 Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997 Date Received: 09/11/99 Level: (low/med) LOW % Moisture: _____ decanted: (Y/N) N___ Date Extracted: <u>09/15/99</u> Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/23/99 Injection Volume: 2.0(uL) Dilution Factor: _____1.0 GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q U 108-95-2----Phenol 111-44-4-----bis(2-Chloroethyl)Ether 5 U 95-57-8----2-Chlorophenol 5 U 541-73-1----1, 3-Dichlorobenzene 5 U 106-46-7----1,4-Dichlorobenzene 5 U 5 100-51-6-----Benzyl Alcohol U 95-50-1----1, 2-Dichlorobenzene 5 U 95-48-7----2-Methylphenol 5 U 108-60-1----2,2'-oxybis(1-Chloropropane)_ 5 U 106-44-5----4-Methylphenol 5 U 5 621-64-7----N-Nitroso-Di-n-Propylamine U 67-72-1-----Hexachloroethane____ 5 U 98-95-3-----Nitrobenzene 5 U 5 78-59-1-----Isophorone U 88-75-5----2-Nitrophenol 5 U 105-67-9-----2,4-Dimethylphenol 5 U 5 U 65-85-0-----Benzoic Acid 111-91-1-----bis(2-Chloroethoxy)Methane 5 U 5 U 120-83-2----2,4-Dichlorophenol 120-82-1----1, 2, 4-Trichlorobenzene 5 U 5 U 91-20-3-----Naphthalene 5 106-47-8-----4-Chloroaniline U 5 87-68-3------Hexachlorobutadiene U 59-50-7----4-Chloro-3-Methylphenol 5 U 5 91-57-6----2-Methylnaphthalene U 5 77-47-4------Hexachlorocyclopentadiene U 88-06-2----2,4,6-Trichlorophenol 5 U 95-95-4----2,4,5-Trichlorophenol 10 U U 91-58-7----2-Chloronaphthalene 5 88-74-4----2-Nitroaniline U 10 131-11-3-----Dimethyl Phthalate 5 U 5 208-96-8-----Acenaphthylene U 606-20-2----2,6-Dinitrotoluene 5 U

SEMIVOLATILE ORGANIC ANALYSES

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration: $\mu g/L$ (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
l.I-Dichloroethene	5	5 .	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

ese limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoro me th ane	97	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	115	75 - 125

Reported by: ______ Approved by: ______

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: TB091099-01

Laboratory 1D: 990807-03

Date Sampled: 09/10/99

Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99

Associated Method Blank: V120923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	l
1,1,2,2-Tetrachloroethane	ND	l
Toluene	ND	I
Chlorobenzene	ND	1
Ethylbenzene	ND	ı
Styrene	· ND	1
Total Xylenes	ND	. 1

ND = Not detected

Surrogate Spike Recovery

100	62 - 139
98	75 - 125
107	75 - 125
110	75 - 125
	98 107

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Reported by:	y	Approved by:	U/ (
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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L.	nem	. 101	га гест	บหนอ

Client Sample 1D: TB091099-01

Laboratory ID: 990807-03

Date Sampled: 09/10/99

Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99

Associated Method Blank: V120923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	l
iomethane	ND	l
I Chloride	ND	1
Chloroethane	ND	i l
Methylene Chloride	ND	l
Acetone	10	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
I, I-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	l
Chloroform	ND	l
1,2-Dichloroethane	ND	i
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	ı
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	l
1,2-Dichloropropane	ND	1
rans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	t
1,1,2-Trichloroethane	ND	I
Benzene	ND	l
cis-1,3-Dichloropropene	ND	l
Bromoform	ND	ι
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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		XI			/
Reported by:		Υ	Approved by:	Q/ (
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	2	1
Chlorobenzene	ND	l
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	t

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) **VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B**

CI	ient:	Tetra	Tech	NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	l
Chloride	ND	1
Chioroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1.1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	l
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	l
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	. 1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
I, I, 2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	Appr	oved by:	7_(

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) **VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: F8091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: I

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND ·	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	i
•		

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound		Recovery(%)	QC Limits(%)	
1.2-Dichloroethane-d4 Dibromofluoromethane Toluene-d8 Bromofluorobenzene	>	95 97 109 109	62 - 139 75 - 125 75 - 125 75 - 125	

Reported by: Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NU	S
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Client Sample ID: FB091099-01

Laboratory ID: 990807-01

Date Sampled: 09/10/99

Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99

Associated Method Blank: V150923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
B methane	ND	. 1
V. J. Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	. 8	Ś
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	ł
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	i
Chloroform	ND	I
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1 ·
1,2-Dichloropropane	ND	į.
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1 .
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	γ	Approved by: _	<i>₹</i> / (
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"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
Tetrachloroethene	ND	l	
1,1,2,2-Tetrachloroethane	ND	1	
Toluene	ND	1	
Chlorobenzene	ND	1	
Ethylbenzene	ND	1	
- Styrene	· ND	l	
Total Xylenes	ND	• . l	
-			

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	93	62 - 139	
Dibromofluoromethane	98	75 - 125	
Toluene-d8	110	75 - 125	
Bromofluorobenzene	107	75 - 125	

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Reported by:	V	Approved by:(

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	i
Methylene Chloride	ND	I
Acetone	· ND	5
Carbon Disulfide	ND	ł
1,1-Dichloroethene	ND	Į.
1.1-Dichloroethane	ND	t
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	l
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone ·	ND	5
4-Methyl-2-Pentanone	ND	5

Approved by:

VOLATILE ANALYSES

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

Corrective Action Form

QAT0237	Page #	
Corrective Action Track	ing #	
Date:	Date:	
Supervisor:	QA/QC Officer:	
Proof of Return to Control:	•	
Name:	Date:	
,		
Action Taken: (if client contacted, reference client contact.)	t name and date)	
	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Samples Affected: Cherry ID: (reference both Cuimic and client IDs)	15 190707-01 9 770507-03	
Clianica Tale of Tale	A	
The state of the s		
1 Dabble was piex	and in one of the duplicate viale on	1
(describe what happened, when, where and	thow, and who discovered the problem	
Out of Control Situation : Birthyla	Specient in VOA Sandes	
Name: Army St. Jury	Date: 913.99	
A = A = A = A = A	0 - 00	

CEIMIC CORPORATION Sample Receiving Checklist

	Sample Receiving Checklist	
LIMS	,91000/	Cooler Number: 1-3
Client:	Tetra Tech	Number of Coolers: 3
Project	NAS Pensacola	Date Received: 9 / /1 / 99
A.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened:	99
ι.	Have designated person initial here to acknowledge receipt of cooler:	(date): 9 / 11 / 99
2.	Did cooler come with a shipping slip (airbill, etc.)?	YES NO
	If YES, enter carrier name & airbill number here: Fode X	
_	510789127451	
3.	Were custody seals on outside of cooler? How many & where: 1, 10, 17	YES NO
4.	Were custody seals unbroken and intact at the date and time of arrival	
5.	Did you screen samples for radioactivity using a Geiger Counter?	Redding: VY (YES) NO
6.	Chain of Custody #: 0769	
7,	Were custody papers sealed in a plastic bag & taped inside to the fid?	(ES):0
S .	Were custody papers filled out properly (ink, signed, etc.)?	
9.	Did you sign custody papers in the appropriate place?	(YES)VO
10.	Was project identifiable from custody papers?	YES NO
11.	If required, was enough ice used?	C Type of ice: HVE (YES 20
В.	by (print): Any St. Sahn (sign): 112	J. St. John
12.	Describe type of packing in cooler:	
13.	Were all bottles sealed in separate plastic bags?	YES NO
l4.	Did all bottles arrive unbroken and were labels in good condition?	YES 100
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?	YES NO
16.	Did all bottle labels agree with custody papers?	YES(NO)
17.	Were correct containers used for the tests indicated?	YES NO
18.	Were samples received at the correct pH?	
19.	Was a sufficient amount of sample sent for tests indicated?	(YES)10
20.	Were bubbles absent in VOA samples? If NO, list by sample#: F609/09901	4- TBU91099-01 YES NO
21.	Laboratory labelling verified by: (Initials): (date): / /	

"Analytical Chemistry for Environmental Management"

850-656-2425 Terry Hanson Talahassec

Fax Cover Sheet

Tetra Tech, Nols
Lee Lect Terry Hansen
412-921-40-40 / (850) 385- 486 C
Henry Lubwite
913-44
CTO 4986 NAS Rensucola
event 100-MW-001-01 according to COC. assign ID according to COC. eived 16 sample: labelled ID# 100-Mcd-003-01 abelled ID#100-MW-002-01. The chain of costorly abelled ID#100-MW-002-01. The chain of costorly are should be eight containers for each ID. signed 100-MW-002-01 IO#; according yile collection time which was specific yile collection time which was specific 1130 = 100-MW-002-01

					Origi	nal Cha	Chain c	of C	Custoc dy goes	ly to L	.aborator	y (40	1)XC.	}	/.		1		7 U T
:	t#		Desir	t Name			-											Pag	je		_ of
		986		+S Pensacole OLFBrown.	Cooler	Temp.					T		Analyse	5				1 1		\Box	
-	lers (pleas		l	Babby R. Bobo	Cooler	* 3	7.1		75,5		Ps+1128		22		Gamila.						
) } }	1994 Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	752 Voc	рН	50	рΗ	5	рΗ	77. 176.	рΗ	S.	рН	.v	рH		рН	Remarks
	9/10	1245	0-	100-mw-001-01	W	8	χ		Ϋ́		-Y-	مدرر	χ		X						
<u>)</u>	9/10	1420	G	100-mw-002-01	1	8	X		V		V		X		X						
<u>8</u>	9/10	1130	G	100-mw-603-01	4	B	X		Y	¥	λ		×		X				**************************************		
	9/10	_	G	100- mw-00-01	w	8	بع		Ϋ́		χ.		X		K						Dup.
2	9/16	0920	G-	100-mw-604-01	w	8	К		K		X		K		K		•				
<u>M</u>	9/10	1210	م	10 FB 691694-01	w		X		Κ.		K		K		X						Field Blank
93	4/10	1435	a.	ER 491699-01	W	8	X		Y		Ý		Ý		Y					П	Eguin Rinsa
33	9/10 9/10 4/10	0900	G	TB \$91\$99-\$1	W	Z	X													П	TLIP Palunk
																		i			
				·																	
	Project #			Relinguished by (signature)		9/10/	Date/Time		બ		ceived by (sign									Date/Time
L	1080		tijs. Kondes	Relinquished by (signature)			Date/Time	1		Re	ceived by (sigi	nature)							í	Date/Time
	NO.) [Relinquished by (signature)			Date/Time	,		Re	eyed by C	Col	nic (signat	(fe)	77	\overline{I}				-	Date/Time

CHAIN OF CUSTODY

"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck Tetra Tech NUS Foster Plaza VII 661 Andersen Dr. Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS. Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen

Tetra Tech NUS

1311 Executive Center Dr.

Ellis Bldg.

Suite 220

Tallahassee, FL 32301

Mr. Arnold Lamb

Tetra Tech NUS

794 S. Military Trail

Deerfield Beach, FL 33442

LABORATORY CONTROL SAMPLE

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.:990799

SAS No.:

.

SDG NO.: 025502

plid LCS Source: ERA LCSS 241

queous LCS Source: INOR-VNT-ICV

	Aqu	eous (ug/I	L)		•			
Analyte	True	Found	8R	True	Found C	Li	mits	%R
Aluminum	10000.0	10048.00	100.5	5250.0	3974.8	3150.0	5670.d	75.7
Barium	10000.0	9440.00	94.4	330.0	297.6	221.1	405.9	90.2
Beryllium	250.0	250.18	100.1	42.7	40.2	34.2	47.8	94.2
Calcium	25000.0	24906.00	99.6	1320.0	1108.0	937.2	1716.d	83.9
Chromium	1000.0	946.62	94.7	46.0	38.2	36.8	51.5	82.9
Cobalt	2500.0	2335.50	93.4	120.0	104.0	93.6	124.8	86.7
Copper	1250.0	1165.70	93.3	147.0	131.1	110.3	163.2	89.2
Cyanide	-780.0	79.01	98.8	160.0	154.5	65.2	255.d	96.5
Iron	5000.0	5004.60	100.1	10200.0	7488.6	4692.0	13056.d	73.4
Magnesium	25000.0	25464.00	101.9	2340.0	2056.8	1638.0	2433.6	87.9
Mar anese	2500.0	2358.50	94.3	166.0	137.1	136.1	172.6	82.6
N ₁ 1	2500.0	2306.30	92.3	138.0	120.5	93.8	157.3	87.3
Potassium	25000.0	23814.00	95.3	1480.0	1186.6	947.2	2012.8	80.2
Sodium	25000.0	25771.00	103.1	845.0	695.3	616.9	904.2	82.3
Vanadium	2500.0	2466.50	98.7	65.1	55.0	51.4	72.3	84.5
Zinc	2500.0	2346.90	93.9	75.0	61.5	59.3	81.8	82.0

-7-

LABORATORY CONTROL SAMPLE

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.:

SDG NO.: 025502

id LCS Source: ERA LCSS 241

eous LCS Source: INOR-VNT-ICV

	Aque	ous (ug/L)	Solid (mg/kg)									
Analyte	True	Found %R	True	Found C	Limit	s ar						
Cyanide	80.01	74.0192.5 1	160.0	139.5	65.2	255.d 87.2						

-7-

LABORATORY CONTROL SAMPLE

stract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

.id LCS Source: ERA LCSS 241

ieous LCS Source: INOR-VNT-ICV

-	Aqu	neous (ug/L)		Solid (mo	g/kg)	
Analyte	True	Found %R	True	Found C	Limits	€R
Mercury			2.2	2.23	1.5	2.9 102.6

-7-

LABORATORY CONTROL SAMPLE

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.:990799

SAS No.:

SDG NO.: 025502

lid LCS Source: ERA LCSS 241

ueous LCS Source: INOR-VNT-ICV

	Aque	ous (ug/I	2)	Solid (mg/kg)								
Analyte	True	Found	8R	True	Found C	Limi	ts	5 8R				
Antimony	500.0	453.71	90.7	33.0	20.1	12.2	50.5	60.8				
Arsenic	200.0	181.43	90.7	93.9	83.4	66.7	119.3	88.8				
Cadmium	100.0	87.10	87.1	97.2	82.0	73.9	105.d	84.4				
Lead	200.0	177.29	88.6	135.0	113.6	106.7	155.3	84.2				
Selenium	200.0	183.29	91.5	96.0	80.2	56.4	123.8	83.6				
Silver	1250.0	1139.80	91.2	86.7	82.2	68.5	103.2	94.8				
Thallium	200.0	171.50	85.8	45.7	40.9	35.2	58.d	89.5				

BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.:990799

SAS No.:

SDG NO.: 025502

eparation Blank Matrix (soil/water): WATER

eparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			Continuing (Preparation Blank	*		
Analyte	(ug/L)	С	1 0	2	С	3	С		С		М
Aluminum			41.0 U	41.0	ט	42.3	В	41.000	U	\prod	Ρĺ
Barium	•		16.4 B	12.4	В	17.4	В	4.500	บ		Ρĺ
Beryllium			0.4 U	-0.4	B	0.4	ט	-0.640	В	\prod	P
Calcium			-127.3 B	170.1	В	-254.8	В	-70.650	В	\prod	P
Chromium			-10.9 B	-11.8	В	-9. 9	В	-8.050	В	П	P
Cobalt			7.1 B	5.7	В	8.5	В	5.200	Ü	\prod	P
Copper			-4.7 B	-6.6	В	-4.7	В	3.800	U	П	P
Cyanide								5.000	บ	Π	cl
nc			40.0 U	40.0	ט	40.0	υ	40.000	U	\prod	P
gnesium			119.0 ປ	133.7	B	119.0	ָט	119.000	U	ĪĪ	Ρĺ
Manganese			3.0 ℧	3.0	ט	3.0	ט	3.000	Ŭ	$\overline{\prod}$	P
Nickel			-24.4 B	-31.9	В	-23.9	В	-28.350	В	Π	ρl
Potassium			222.0 0	314.8	В	285.8	В	222.000	U	Π	P
Sodium		1 1	57.0 ບ	133.2	B	57.0	υ	120.000	В	П	P
Vanadium			5.3 B	2.8	ט	2.8	U	2.800	U	П	P
Zinc			5.5 ບ	5.5	ש	5.5	υ	10.400	В		P

BLANKS

intract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

eparation Blank Matrix (soil/water): SOIL

eparation Blank Concentration Units (ug/L or mg/kg): MG/KG

	Initial Calib. Blank			C	ontinuing C Blank (u		i i	Preparation Blank	-	-	
Analyte	(ug/L)	¢	1	С	2	С	3 C		С		М
Aluminum	58.4	В	42.3	В	41.0	ט	41.0 ប	4.100	U	П	P
Barium	33.2	В	6.0	В	4.5	וט	11.9 B	0.450	U	Ц	P
Beryllium	0.6	В	-0.4	В	-0.4	В	0.4 ប	-0.043	В	П	P
Calcium	55.0	Ü	-566.2	В	-523.7	В	-84.8 _B	-53.789	В	\prod	P
Chromium	-9.5	В	-12.3	В	-10.9	В	-11.4 _B	-1.136	В	П	P
Cobalt	9.2	В	5.4	В	5.2	ן ט	ان 5.2	0.520	Ū	Ш	P
Copper	4.7	В	-7.5	В	-8.4	В	-5.6 B	-0.653	В		P
Cyanide								0.500	Ū	Ш	c l
Iron	40.0	Ū	40.0	ט	-40.3	В	40.0 U	4.000	ט		₽
Magnesium	122.4	В	119.0	ט	119.0	ט	119.0 U	11.900	ŭ	П	P
Manganese	4.8	В	3.0	ט	-3.9	В	3.0 ប	-0.432	В	П	P
Nickel	-23.0	В	14899.0		-30.6	В	-24.4 B	-2.747	В		P
Potassium	222.0	U	222.0	U	222.0	ט	ט 222.0	22.200	U		P
Sodium	73.6	В	-241.3	В	-181.7	В	57.0 U	-12.376	В		P
Vanadium	8.4	В	2.8	ט	2.8	[ט	3.0 B	0.280	U		P
Zinc	7.4	В	18.0	В	5.5	ט	5.5 ປ	1.780	В	\prod	P

- 3 -**BLANKS**

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799

SAS No.:

SDG NO.: 025502

paration Blank Matrix (soil/water): SOIL

paration Blank Concentration Units (ug/L or,mg/kg): MG/KG

Analyte	Initial Calib. Blank				inuing Blank	Preparation Blank	-	-			
Analyte	(ug/L)	С	1	C	2	С	3	c		c	м
Cyanide	10.	ט ט	10.	0 0	10.	ט 0	10.0	ט כ	0.500	[ט	C

TOTAL METALS AND CYANIDE . . . 3 -

BLANKS

stract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

paration Blank Matrix (soil/water): SOIL

paration Blank Concentration Units (ug/L qr.mg/kg): MG/KG

	Initial Calib. Blank			Con	tinuing Blank	Calibr (ug/L)	ation		Preparation Blank	-	-	
Analyte	(ug/L)	С	1	С	2	С	3	С		С	М	
Mercury			0.1	4 U	0.1	4 U	0.1	4 U	0.070	ט	/A\	1

TOTAL METALS AND CYANIDE - 3 -**BLANKS**

ntract: Outlaying Landing Field Bronson Pensacola, FL

code: CEIMIC Case No.:990799

SAS No.:

SDG NO.: 025502

aparation Blank Matrix (soil/water): WATER

eparation Blank Concentration Units (ug/L qr mg/kg): UG/L

Analyte	Initial Calib. Blank		_	Co	ntinuing (Blank (u	Preparation Blank	-				
Analyte	(ug/L)	C	1	С	2	C	3	C		_ C	M
Antimony			2.6	ט	2.6	ט			2.600	ט	P
Arsenic			3.6	U	3.6	ט			3.600	ַ ט	P
Cadmium			0.4	ש	0.4	ט			0.430	ַ	P
Lead			2.7	ט	2.7	ט			2.700	ט	P
Mercury			0.14	ן ט	0.14	ש	0.14	ַ	0.140	ט	AV
Selenium			2.1	ט	2.1	ש			2.100	ט	P
Silver			3.7	ט	3.7	ט			3.700	ט	P
Thallium			4.4	ט	4.4	וט			4.400	ש	P

BLANKS

stract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 025502

paration Blank Matrix (soil/water): SOIL

aparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank		Continuing Calibration Blank (ug/L)						Preparation Blank	-	-	
widt i te	(ug/L)	С	1	С	2	С	3	C		С		M
Antimony	2.	ت 6	2.6	[ט]	2.6	ט	2.6	Ū	0.260	U	П	P
Arsenic] 3,.	6 U	3.6	ט	3.6	0	3.6	ָט	0.360	U		P
Cadmium	0.	4 ט	0.4	ט	0.4	ט	0.4	ַ ט	0.043	ט		P
Lead] 2.	7 ט	2.7	ש	2.7	ט	2.7	ט	0.270	ט		P
Selenium	2.	ט 1	2.1	ט	2.1	ט	2.1	ט	0.210	ַ ט	П	P
Silver] 3.	7 [7]	3.7	ן ט	5.4	В	3.7	ט	0.370	U		P
Thallium	- 4.	4 ט	4.4	שן	4.4	וט	4.4	ט	0.440	ט		P

TOTAL METALS AND CYANIDE - 3 BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

code: CEIMIC

IC Case No.: 990799

SAS No.:

SDG NO.: 02SS02

eparation Blank Matrix (soil/water): SOIL

eparation Blank Concentration Units (ug/L on mg/kg): MG/KG

	Initial Calib. Blank				C	ontinuing C Blank (u				Preparation Blank		-	
Analyte	(ug/L)		С	1	С	2	С	з с			С		м
Antimony	2.	6	ט	2.6	ט	2.6	[ט	2.6 ប	١	0.260	U		P
Arsenic] 3.	6	U	3.6	ש	3.6	ט	3.6 _{ប៊}		0.360	บ		P
Cadmium	0.	4	ָט	0.4	ן ט	0.4	ן ט	0.4 ប្រ		0.043	Ų	Π	P
Lead	2.	7	ָט	2.7	ן ט	2.7	[ט	2.7 ט		0.270	บ		P
Selenium	2.	1	ט	2.1	ן ט	2.1	U	2.1 ប		0.210	U		P
Silver	3.	7	ט	3,7	ן ט	5.4	В	3.7 ប		0.370	U		P
Thallium	- 4.	4	ָט	4.4	U	4.4	ט	4.4 U	-	0.440	U		P

TOTAL METALS AND CYANIDE - 5b -

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

ntract: Outlaying Landing Field Bronson Pensacola, FL

100-SS-01A

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water): SOIL

Level (low/med):

LOW

Concentration Units: ug/L

31	Control	Spiked Sample	Sample		Spike				
Analyte	Limit %R	Result (SSR) C	Result (SR)	С	Added (SA)	%R		Q	M
Antimony		171.03	2.60	U	200.	0 85	5.5		P
Arsenic		367.16	3.60	Ū	400.	91	8		P
Cadmium	i i	39.76	0.43	Ū	50.	7 9	.5		P
Lead		131.41	41.27		100.	90	1.1		P
Mercury		1.02	0.14	U	1.	0 102	2.0		AV
Selenium		160.73	2.10	U	200.	0 80) . 4		P
Silver		172.54	3.70	Ū	200.	0 86	5.3		P
Thallium	1	342.47	4.40	U	400.	0 85	5.6		₽

- 5a -SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01SD

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC

Case No.: 990799

SAS

SDG NO.: 02SS02

trix (soil/water):SOIL

Level (low/med):

LOW

Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control	Spiked Sample	_	Sample	_	Spike	_		
Autaly Ce	Limit %R	Result (SSR)	С	Result (SR)	С	Added (SA)	§R	인	М
Aluminum		1964.8412		1930		225.38	16.1		₽
Antimony	75 - 125	30.1826		0.293	ט	56.34	53.6	N	P
Arsenic	75 - 125	4.0890		0.406	บ	4.51	90.7		P
Barium	75 - 125	201.3185		2.51	В	225.38	88.2		₽
Beryllium	75 - 125	5.4532		0.042	U	5.63	97.0		₽
Cadmium	75 ⁻ - 125	4.6499		0.049	U	5.63	82.5		P
Calcium	75 - 125	209.1278	В	6.20	U	225.38	92.8		P
Chromium	75 - 125	20.5229		0.609	U	22.54	91.1		P
ilt	75 - 125	50.4846		0.798	В	56.34	68.2		P
Copper	75 - 125	24.9301		0.997	В	28.17	85.0		P
Iron		856.0176		802		112.69	47.7		P
Lead	75 - 125	6.2227		4.65		2.25	69.8	N	P
Magnesium	75 - 125	259.0827	В	64.3	В	225.38	86.4		P
Manganese	75 - 125	51.6903		2.13	-	56.34	88.0		P
Mercury	75 - 125	0.5172		0.070	U	0.50	103.5		AV
Nickel	l·75 - 125	46.6948		0.710	ับ	56.34	82.9		P
Potassium	75 - 125	260.9759	В	54.4	В	225.38	91.6		P
Selenium	75 - 125	1.2162		0.237	ש	1.13	107.9		P
Silver	75 - 125	5.2400		0.417	U	5.63	93.0		P
Sodium	75 - 125	222.8758	В	6.42	U	225.38	98.9		₽
Thallium	75 - 125	4.6317		0.496	U	5.63	82.2		P
Vanadium	75 - 125	55.2164	1	3.87	В	55.34	91.1		P
Zinc	75 - 125	49.8253		3.36	I	56.34	82.5		₽

Approved: D

- 5a -SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-ss-01s

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS

SDG NO.: 02SS02

trix (soil/water): SOIL

Level (low/med):

LOW

Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

		centration onits		J. J	-	, ,			
Analyte	Control	Spiked Sample Result (SSR)	С	Sample	С	Spike	8R	Q	м
- 1 :	Limit %R		1 1	Result (SR)	1	Added (SA)		7	
Aluminum	1	1784.4265	1 1	1930	1	225.38	-63.9	_	P
Antimony	75 - 125	······································			U	56.34	63.8	N	
Arsenic	75 - 125	4.0738		0.406	U	4.51	90.4		₽
Barium	75 - 125	194.9516		2,51	В	225.38	85.4		₽
Beryllium	75 - 125	5.2693		0.042	U	5.63	93.5		₽
Cadmium	75 - 125	4.7017		0.049	ט	5.63	83.4		₽
Calcium	75 - 125	170.9376	В	6.20	U	225.38	75.8		P
Chromium	75 - 125	19.3475		0.609	ט	22.54	85.8		₽
Cobalt	75 - 125	49.1278		0.798	В	56.34	85.8		P
Copper	75 - 125	25.1431		0.997	В	28.17	85.7		₽
Cyanide	75 - 125	9366.3125		484	ט	4770.99	196.3	И	С
Iron		827.9130		802		112.69	22.8		P
Lead	75 - 125	6.7709		4.65		2.25	94.1		₽
Magnesium	75 - 125	250.0000	В	64.3	В	225.38	82.4		P
Manganese	75 - 125	49.3577		2.13	ł	56.34	83.8		P
Mercury	75 - 125	0.4182		0.070	U	0.48	87.3		ΑV
Nickel	75 - 125	47.4386		0.710	U	56.34	84.2		P
Potassium	75 - 125	262.3845	В	54.4	В	225.38	92.3		P
Selenium	75 - 125	0.9337		0.237	ט	1.13	82.9		P
Silver	75 - 125	5.3220	1	0.417	טן	5.63	94.5		P
Sodium	75 - 125	203.8990	В	6.42	U	225.38	90.5		₽
Thallium	75 - 125	4,4755		0.496	ע	5.63	79.4		P
Vanadium	75 - 125	54.3419		3.87	3	56.34	89.6		P
Zinc	75 - 125	48.9182		3.36	T	56.34	80.8		E

Approved XX

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INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.:

025502

trix (soil/water): WATER

Lab Sample ID: 990799-20

vel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	м
.7429-90-5	Aluminum	76.3	В		P
7440-36-0	Antimony	2.6	ט	N	P
7440-38-2	Arsenic	3.6	Ū		P
7440-39-3	Barium	13.9	В		P
7440-41-7	Beryllium	0.37	Ū		P
7440-43-9	Cadmium	0.43	ט		P
7440-70-2	Calcium	2980	В		P
7440-47-3	Chromium	5.4	ט		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	С
7439-89-5	Iron	3630		ļ	P
7439-92-1	Lead	2.7	ט	И	P
7439-95-4	Magnesium	586	В		P
7439-96-5	Manganese	50.1		-	P
7439-97-6	Mercury	0.19	ט		AV
7440-02-0	Nickel	6.3	Ų	1	P
7440-09-7	Potassium	471	В	1	P
7782-49-2	Selenium	2.1	ט		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4910	В		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	ט		P
7440-66-6	Zinc	15.1	В	1	P

Color Before:

COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

comments:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

intract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02\$\$02

trix (soil/water):WATER

Lab Sample ID: 990799-19

vel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	374			P
7440-36-0	Antimony	2.5	U	И	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	22.8	В		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	3240	В	1	P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	12.0	В		P
7440-50-8	Copper	[4.8	В		P
	Cyanide	5.0	U	И	C
7439-89-6	Iron	1950			P
7439-92-1	Lead	2.7	Ū	N	P
7439-95-4	Magnesium	1060	В	1	₽
7439-96-5	Manganese	36.9		l	P
7439-97-6	Mercury	0.20	U	1	AV
7440-02-0	Nickel	6.3	Ų	1	₽
7440-09-7	Potassium	960	B	l	P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4360	3		P
7440-28-0	Thallium	4.4	U		P
7440-52-2	Vanadium	12.6	В		l P
7440-66-6	Zinc	13.7	В		P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

stract: Outlaying Landing Field Bronson Pensacola, FL

> Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

rix (soil/water):WATER

Lab Sample ID: 990799-18

el (low/med): LOW

Date Received: 09/11/99

olids: 0.0

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	92.3	В		P
7440-36-0	Antimony	2.6	Ū	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.9	В		P
7440-41-7	Beryllium	0.37	ט		P
7440-43-9	Cadmium	0.43	U	İ	P
7440-70-2	Calcium	2700	В		P
7440-47-3	Chromium	5.4	ט		P
7440-48-4	Cobalt	5.2	U	• •	P
7440-50-8	Copper	3.8	ַ		P
	Cyanide	5.0	ט	И	С
7439-89-6	Iron	2180			P
7439-92-1	Lead	2.7	ŭ	74	P
7439-95-4	Magnesium	395	В		P
7439-96-5	Manganese	14.3	В	1	P
7439-97-6	Mercury	0.19	ט	1	VA
7440-02-0	Nickel	6.3	ַ		P
7440-09-7	Potassium	411	В		P
7782-49-2	Selenium	2.1	U	1	P
7440-22-4	Silver	3.7	Ŭ	1	P
7440-23-5	Sodium	2560	B	1	P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	ט		₽
7440-66-6	Zinc	16.3	В	}	P

ol

defore: COLORLESS Clarity Before: CLEAR

Texture:

COLORLESS

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

atract: Outlaying Landing Field Bronson Pensacola, FL

> Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

:rix (soil/water):WATER

Lab Sample ID: 990799-17

rel (low/med): LOW

Date Received: 09/11/99

Bolids: 0.0

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	41.0	U		P
-7440-36-0	Antimony	2.6	U	И	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	13.9	В		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	ט		P
7440-70-2	Calcium	2960	В		P
7440-47-3	Chromium	5.4	U	1	P
7440-48-4	Cobalt	5.2	U	· -	P
7440-50-8	Copper	3.8	U	Ī	P
	Cyanide	5.0	U	И	C
7439-89-6	Iron	3570		[P
7439-92-1	Lead	2.7	U	И	P
7439-95-4	Magnesium	617	В	<u> </u>	P
7439-96-5	Manganese	41.0			P
7439-97-6	Mercury	0.20	U	Ì	AV
7440-02-0	Nickel	6.3	ע		P
7440-09-7	Potassium	393	В		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	ט	1	P
7440-23-5	Sodium	3410	В		P
7440-28-0	Thallium	4.4	U	1	P
7440-62-2	Vanadium	2.8	ט		P
7440-56-6	Zinc	12.3	В		P

Color Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

atrix (soil/water):WATER

Lab Sample ID: 990799-16

evel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): $\mu G/L$

CAS No.	Analyte	Concentration	c	0	М
C.13 1.0.	12.027			*	''
7429-90-5	Aluminum	269			P
7440-36-0	Antimony	2.6	U	И	P
7440-38-2	Arsenic	3.6	ַ		P
7440-39-3	Barium	17.9	В		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	บ		P
7440-70-2	Calcium	3210	В		P
7440-47-3	Chromium	5.4	Ū		P
7440-48-4	Cobalt	5.7	В	· •	₽
7440-50-8	Copper	3.8	U		₽
	Cyanide	5.0	U	И	C
7439-89-6	Iron	1910			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	690	В		P
7439-96-5	Manganese	33.5			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potessium	549	В	1	₽
7732-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		₽
7440-23-5	Sodium	4180	В		P
7440-28-0	Thallium	4.4	U	İ	P
7440-62-2	Vanadium	5.7	В	l	P
7440-66-6	Zinc	81.5		1	P

Co.

Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

atract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

• Lab Sample ID: 990799-14

'el (low/med): LOW

Date Received: 09/11/99

50lids: 92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	718			P
7440-36-0	Antimony	0.28	U	N	P
7440-38-2	Arsenic	0.38	U		P
7440-39-3	Barium	1.1	В		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	5.8	U		P
7440-47-3	Chromium	0.57	U		P
7440-48-4	Cobalt	0.55	U		P.
7440-50-B	Copper	0.40	U		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	287			P
7439-92-1	Lead	0.64		И	P
7439-95-4	Magnesiua	33.6	В	1	P
7439-96-5	Manganese	0.60	В		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.67	U	1	P
7440-09-7	Potassium	42.2	В		P
7782-49-2	Selenium	0.22	U		P
7440-22-4	Silver	0.39	ט		P
7440-23-5	Sodium	6.0	ט		P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	1.1	В		P
7440-66-6	Zinc	2.1	3		₽

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After:

YELLOW

Clarity After:

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Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water):SOIL ...

Lab Sample ID: 990799-13

vel (low/med): LOW

Date Received: 09/11/99

Solids: 91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	666	Ī	l	P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.37	U	l	P
7440-39-3	Barium	1.5	В	l	P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U	1	P
7440-70-2	Calcium	5.6	U		P
7440-47-3	Chromium	0.55	U	1	P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	0.39	U	1	P
	Cyanide	0.51	ט	N	c
7439-89-6	Iron	358			P
7439-92-1	Lead .	2.2		N	P
7439-95-4	Magnesium	37.3	В	1	P
7439-96-5	Manganese	1.7		1	P
7439-97-6	Mercury	0.06	U		AV
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	46.1	В		P
7782-49-2	Selenium	0.21	U	1	P
7440-22-4	Silver	0.38	U	1	P
7440-23-5	Sodium	5.8	U	1	P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	0.92	В	1	P
7440-66-6	Zinc	2.5	Ī		P

Color Before: BROWN

Clarity Before:

Texture:

MEDIUM

olor After:

YELLOW

Clarity After:

1.

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102~SS-05

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water):SOIL

Lab Sample ID: 990799-12

vel (low/med): LOW

Date Received: 09/11/99

Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7,429-90-5	Aluminum	889			P
7440-36-0	Antimony	0.26	ט	И	P
7440-38-2	Arsenic	0.36	U		P
7440-39-3	Barium	1.2	В		P
7440-41-7	Beryllium	0.04	ע	ĺ	P
7440-43-9	Cadmium	0.04	ש		P
7440-70-2	Calcium	5.5	ט		P
7440-47-3	Chromium	0.54	U	1	P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	0.38	U		P
	Cyanide	0.53	Ū	И	C
7439-89-6	Iron	541			P
7439-92-1	Lead	3.8		N	P
7439-95-4	Magnesium	39.8	В		P
7439-96-5	Manganese	0.38	B		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.63	ַ ט		P
7440-09-7	Potassium	61.8	В		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.37	ט		P
7440-23-5	Sodium	5.7	ן ט	1	P
7440-28-0	Thallium	0.44	U		P
7440-62-2	Vanadium	1.4	В		P
7440-66-6	Zinc	2.2	<u> </u>		P

Color Before: BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

YELLOW

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

àb Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water): WATER

Lab Sample ID: 990799-11

evel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Ω	м
7429-90-5	Aluminum	1230			P
7440-36-0	Antimony	2.6	U	И	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	9.4	В		P
7440-41-7	Beryllium	0.37	ט	-	P
7440-43-9	Cadmium	0.43	ט		P
7440-70-2	Calcium	492	В		P
7440-47-3	Chromium	5.4	U	-	P
7440-48-4	Cobalt	5.7	В		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	ט	N	l c
7439-89-6	Iron	1860			P
7439-92-1	Lead	10.5		N	P
7439-95-4	Magnesium	538	В		P
7439-96-5	Manganese	6.1	В		P
7439-97-6	Mercury	0.20	U	I	VA
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	561	В		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	ט	Į	P
7440-23-5	Sodium	4040	В		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	4.1	В	1	P
7440-66-6	Zinc	21.2	1	1	P

Color Before: COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

ம் Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 025502

trix (soil/water): WATER

Lab Sample ID: 990799-10

:vel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): μ G/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	318	} 		P
7440-36-0	Antimony	2.5	U	N	P
7440-38-2	Arsenic	3.5	ַט		P
7440-39-3	Barium	23.8	В		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		p
7440-70-2	Calcium	949	3		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	6.4	В	1	P
7440-50-8	Copper	3.8	U	1	P.
	Cyanide	5.0	U	N	C
7439-89-6	Iron	40.0	U		₽
7439-92-1	Lead	2.7	ט	N	P
7439-95-4	Magnesium	1040	3		P
7439-96-5	Manganese	10.6	3		P
7439-97-6	Mercury	0.20	U		VA
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	505	3		P
7782-49-2	Selenium	2.1	ľΰ		P
7440-22-4	Silver	3.7	ΙŬ	1	P
7440-23-5	Sodium	3220	3	Ī	₽
7440-28-0	Thallium	4.4	U		₽
7440-62-2	Vanadium	6.9	3	1	1 2
7440-66-6	Zinc	22.1	1		₽

Color Before:

COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

ntract: Outlaying Landing Field Bronson Pensacola, FL

code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 025502

:rix (soil/water):SOIL

Lab Sample ID: 990799-08

rel (low/med): LOW

Date Received: 09/09/99

3olids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	2580			P
7440-36-0	Antimony	0.27	ַ ט	N	P
7440-38-2	Arsenic	0.55	В		P
7440-39-3	Barium	2.9	В		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.6	ט		P
7440-47-3	Chromium	0.55	U		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Cobber	0.39	U		P
	Cyanide	0.56	U	И	C
7439-89-6	Iron	872			P
7439-92-1	Lead	3.4		N	P
7439-95-4	Magnesium	62.3	3	Ì	P
7439-96-5	Manganese	2.3			P
7439-97-5	Mercury	0.07	U		VA
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	58.8	3		P
7782-49-2	Selenium	0.23	В		P
7440-22-4	Silver	0.38	U	l	P
7440-23-5	Sodium	10.8	В	1	P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	3.7	B		P
7440-66-6	Zinc	3.4	1		P

Co.

Before:

BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

YELLOW

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-ss-03

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

atrix (soil/water):SOIL

Lab Sample ID: 990799-07

evel (low/med): LOW

Date Received: 09/09/99

Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	2080			P
7440-36-0	Antimony	0.23	Ŭ	N	P
7440-38-2	Arsenic	0.35	В		P
7440-39-3	Barium	2.3	В		P
7440-41-7	Beryllium	0.03	U	}	P
7440-43-9	Cadmium	0.04	U	ļ	P
7440-70-2	Calcium	4.8	U	1	P
7440-47-3	Chromium	0.59	В	Ī.,	P
7440-48-4	Cobalt	0.46	U	1	P
7440-50-8	Copper	0.39	В	1	P
	Cyanide	0.51	U	N	c
7439-89-6	Iron	840		l	P
7439-92-1	Lead	2.9		N	P
7439-95-4	Magnesium	51.1	В	1	P
7439-96-5	Manganese	2.0		1	P
7439-97-6	Mercury	0.07	U		VA
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	42.5	В		P
7782-49-2	Selenium	0.18	ט		P
7440-22-4	Silver	0.33	U		P
7440-23-5	Sodium	10.5	В		P
7440-28-0	Thallium	0.39	U	1	P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	3.1	Ī		P

Color Before: BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

YELLOW

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

025502

tract: Outlaying Landing Field Bronson Pensacola, FL

SAS No.: Code: CEIMIC Case No.:990799

SDG NO.:

rix (soil/water): SOIL

Lab Sample ID: 990799-06

el (low/med): LOW

Date Received: 09/09/99

olids: 89.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	2950			P
-7440-36-0	Antimony	0.29	IJ	И	P
7440-38-2	Arsenic	0.53	В		P
7440-39-3	Barium	3.1	В		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	ט		P
7440-70-2	Calcium	6.1	U	1	P
7440-47-3	Chromium	0.60	U		2
7440-48-4	Cobalt	0.58	U	• -	P
7440-50-8	Copper	0.48	В		5
	Cyanide	0.54	U	N K	C
7439-89-6	Iron	953			P
7439-92-1	Lead	2.3	1	И	P
7439-95-4	Magnesium	52.4	3	1	P
7439-96-5	Manganese	2.5		1	P
7439-97-6	Mercury	0.07	U	l	AV
7440-02-0	Nickel	0.70	ט		P
7440-09-7	Potassium	43.6	3	1	P
7782-49-2	Selenium	0.23	ע	1	2
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.3	ט		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	3.9	3		Đ
7440-66-6	Zinc	3.5	1		D,

301

Before: BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

entract: Outlaying Landing Field Bronson Pensacola, FL

ib Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 025502

itrix (soil/water):SOIL

Lab Sample ID: 990799-05

:vel (low/med): LOW

Date Received: 09/09/99

Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	1930			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.41	U		P
7440-39-3	Barium	2.5	В		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	ט		P
7440-47-3	Chromium	0.61	U		P
7440-48-4	Cobalt	0.80	В		P
7440-50-8	Copper	1.0	В	1	P
	Cyanide	0.56	U	N	C
7439-89-6	Iron	802			P
7439-92-1	Lead	4.7	1	N	P
7439-95-4	Magnesium	64.3	В	[P
7439-96-5	Manganese	2.1	ĺ	1	P
7439-97-6	Mercury	0.07	U	1	AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	54.4	В	1	P
7782-49-2	Selenium	0.24	ַ ט	1	P
7440-22-4	Silver	0.42	U	To a second	P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.50	U	1	P
7440-62-2	Vanadium	3.9	B	1	P
7440-66-6	Zinc	3.4		-	P

Color Before:

BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

YELLOW

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

intract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water):SOIL

Lab Sample ID: 990799-04

vel (low/med): LOW

Date Received: 09/09/99

Solids: 85.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	0.29	ט	И	P
7440-38-2	Arsenic	0.40	ט		P
7440-39-3	Barium	3.4	В		P
7440-41-7	Beryllium	0.04	ט		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	U		P
7440-47-3	Chromium	1.0	В		P
7440-48-4	Cobalt	0.58	U	· ·	P
7440-50-8	Copper	0.50	В	l	P
	Cyanide	0.57	U	N	C
7439-89-6	Iron	1210			P
7439-92-1	Lead	3.9		И	P
7439-95-4	Magnesium	81.8	3		P
7439-96-5	Manganese	3.4			P
7439-97-6	Mercury	0.07	ן ט		AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	63.6	3		P
7782-49-2	Selenium	0.24	В	Ī	P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.49	U		P
7440-52-2	Vanadium	5.0	В		P
7440-66-6	Zinc	3.9	I		P

Col

}efore:

BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

trix (soil/water): SOIL

Lab Sample ID: 990799-03

vel (low/med): LOW

Date Received: 09/09/99

Solids: 94.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Ω	м
7429-90-5	Aluminum	2710	1		P
-7440-36-0	Antimony	0.25	U	N	P
7440-38-2	Arsenic	0.81	В	1	P
7440-39-3	Barium	3.2	В		P
7440-41-7	Beryllium	0.04	U	1	P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.4	ט		P
7440-47-3	Chromium	3.2		1	P
7440-48-4	Cobalt	1.1	В	· ·	P
7440-50-8	Copper	1.3	В	l	P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	1490	1	i	P
7439-92-1	Lead	1.3		И	P
7439-95-4	Magnesium	68.5	В		P
7439-96-5	Manganese	2.1		1	P
7439-97-6	Mercury	0.07	ט	Ī	AV
7440-02-0	Nickel	0.82	В	1	P
7440-09-7	Potassium	44.1	В		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.35	U		P
7440-23-5	Sodium	5.5	Ü		P
7440-28-0	Thallium	0.43	U		P
7440-62-2	Vanadium	5.1			P
7440-66-6	Zinc	3.3	Ī	1	P

Color Before: BROWN

Clarity Before:

Texture:

MEDIUM

Color After:

YELLOW

Clarity After:

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.:

025502

trix (soil/water):SOIL

Lab Sample ID: 990799-02

/el (low/med): LOW

Date Received: 09/09/99

3olids: 96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	2440			P
7440-36-0	Antimony	0.23	U	И	P
7440-38-2	Arsenic	0.31	υ		₽
7440-39-3	Barium	2.3	В		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	ט		P
7440-70-2	Calcium	4.8	บ		P
7440-47-3	Chromium	1.0			D
7440-48-4	Cobalt	0.62	В	• •	₽
7440-50-8	Copper	1.3	В		P
	Cyanide	0.50	U	И	С
7439-89-6	Iron	363			P
7439-92-1	Lead	5.1		И	P
7439-95-4	Magnesium	60.3	В	1	P
7439-96-5	Manganese	1.2	В		P
7439-97-6	Mercury	0.05	ט		AV
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	62.0	В		P
7782-49-2	Selenium	0.45	1		P
7440-22-4	Silver	0.32	ַ ט		P
7440-23-5	Sodium	9.7	В		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	2.8		1	P

old efore: BROWN

Clarity Before:

Texture:

MEDIUM

olor After:

YELLOW

Clarity After:

Artifacts:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.:

025502

rix (soil/water):SOIL

Lab Sample ID: 990799-01

el (low/med): LOW

Date Received: 09/09/99

olids: 97.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	1220			P
7440-36-0	Antimony	0.22	U	N	P
7440-38-2	Arsenic	0.30	U		P
7440-39-3	Barium	2.2	В		P
7440-41-7	Beryllium	0.03	ן ט		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.6	ט		P
7440-47-3	Chromium	0.45	U		P
7440-48-4	Cobalt	0.76	В		P
7440-50-8	Cobber	0.73	В	1	P
	Cyanide	0.50	U	И	c
7439-89-6	Iron	444			P
7439-92-1	Lead	3.3		N	P
7439-95-4	Magnesium	49.7	В		P
7439-96-5	Manganese	2.4			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.52	U		P
7440-09-7	Potassium	53.8	В	1	P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.31	U		P
7440-23-5	Sodium	4.7	U		P
7440-28-0	Thallium	0.37	U		P
7440-62-2	Vanadium	1.9	B	1	P
7440-66-6	Zinc	2.8	l		P

Color Before: BROWN

Clarity Before:

MEDIUM

Color After:

Clarity After:

Artifacts:

TOTAL METALS AND CYANIDE - COVET Page INORGANIC ANALYSIS DATA PACKAGE

tr. Outla	ying Landing Field Bronson	Pensaco	ola, FL	SDG No.:	025502
Code: CEIMIC	Case No.:	990799	100-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	SAS No.:	
No.: ILM04.0					
	Sample No.		Lab Sample ID.		
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	100-MW-003-01	**	990799-18	- 	
	100-MW-DD-01		990799-19		
	100-MW-004-01	. •	990799-20		
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e ICP interel	ement corrections applied?			Yes/No	YES
e ICP backgro	ound corrections applied?			Yes/No	YES
_	raw data generated before	.		•	
-	-			Yes/No	NO
application	n of background corrections	i :		162/10	110
ments:					
	his data package is in com				
itract, both t	echnically and for complet	eness,	for other than the	conditions	detailed
	of the data contained in t				
•	e data submitted on floppy			-	Laboratory
nager or the M	anager's designee, as veri	fied by	the following sign	ature.	
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nature:	Donald Totalli	Name	: Devas To	RTOREUL	
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e:	12/1/12	Tit	In: INDREAME	LAR Plan	

TOTAL METALS AND CYANIDE - Cover Page INORGANIC ANALYSIS DATA PACKAGE

ontract: Out	INURGANIC ANALY laying Landing Field Bronson Pens	SIS DATA PACKAGE	SDG No.: 025502
ib Code: CEIMI	C Case No.: 9907	99	SAS No.:
OW No.: ILMO4.			
	Sample No.	Lab Sample ID.	
	102-SS-02	990799-01	
	102-55-01	990799-02	-
	102-SU-01	990799-03	
	100-55-02	990799-04	
	100-SS-01	990799-05	
	100-SS-01D	990799-05D	
	100-SS-01S	990799-05S	
	100-SS-01SD	990799-05SD	and Mindellines
	100-22-DD	990799-06	
	100-55-03	990799-07	
* *	100-SS-04	990799-08	
	102-MW-004-01	990799-10	ubuspessonna
	102-MW-003-01	990799-11	
	102-SS-05	990799-12	***************************************
	102-SS-03	990799-13	*****
	102-SS-04	990799-14	
	100-MW-001-01	990799-16	
_	round corrections applied?		Yes/No YES
-	re raw data generated before		
applicati	on of background corrections?		Yes/No NO
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-	ble data submitted on floppy disk Manager's designee, as verified		-
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METAL ANALYSES

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

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9	/i 4	1/94	

Project#: 9	190797		Analy	tical M	cthod:	<u>808</u>	(2					Surr. S	ol. ID:	FW99	U Engru	ß		Pren D	ate/Time:	•/ ' :	•
	etm Tech Mi	95				35:							. ID: 📜					Analys	is: <u>7</u> 2	-13 c	
Blank ID:	Pagid-134					usy							7- Spike ID;					Matrix	: 5;	1	
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Final Solvent	ID;	-	Super	visor In	it:	<u>an</u>				·····			_		X Y	Z					
13	t#:					MC		-					- ==	Silica				RE	= Reextr	nct	
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Prepared by:

CEIMIC CORPORATION

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Blank ID:	Peqiu-184				Payy						Addt'l Spike ID;							Matrix: 507/			
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IDENT	IFICATION						·		GC/MS	,		-	GC/LC			TRAP	VSFER	COMMENTS			
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Prepared by:	. MR				y:									Florisil	i	1		ΛL	2nd Alic	quat	
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CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990799

Project#:	190799		Analy	tical M	cthod:	<i>8</i> 0	ندر					Surr. S	ol. ID: _	PW	750	9158		Prej	p Dat	e/Time	:07 1 /5/5
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			<u> </u>								Ţ	XTRAC	T CLEA	N-UP S	ECTION	1		~		DATE	
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Client	Ceimie	Vo!/ Wt	1	ļ	%		Acid	Basic	Final Ext	Clean Up	Post Clean	Vol	Clean Up	Post Clean	Florisil	Post Florisit	Vol	G	ic/	GC/	
ID	ID	(m1/g)) (µl)	(µ1)	Moist	ρΗ	pH	pH	Vol*	Vol•	Vol*	Trans*	!! '	Vol*	Vol*	1	Trans*	8 -	1	LC	
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			Witne	ssed By	·	<u> </u>		<u>.</u> .			14-P-24-47		- 🗇	Florisil	Lat#:			/	AL 1	2nd Ali	quot
							mare:1,77	***************************************						-			AND MADE YOU		-	A	

LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: P0914-LCS4

Date Sample Analyzed:

09/22/99

Matrix: Soil

Date Sample Prepared: 09/14/99

Associated Method Blank: P0914-B4

Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	167	110	66	30 - 150
Aroclor-1260	167	140	84. ·	34 - 174

Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	. 68	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	in	
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⁺ Dry weight basis.

LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: P0915-LCS4

Date Sample Analyzed:

09/27/99

Matrix: Aqueous

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	5.0	4.7	94	30 - 150
Aroclor-1260	5.0	5.6	112	47 - 127

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Sis S	Approved by:	M	
			L L	

METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990799

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Arocior-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachioro-m-xylene	95	56 - 111	
Decachlorobiphenyl	85	34 - 129	

^{*} These limits are provided for advisory purposes.

Reported by:	NB	Approved by:	
•			

METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0914-B4

Matrix: Soil

Ceimic Project: 990799_ -

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Concentration in: ug/Kg (ppb)

Farget Analyte	Sample Concentration	Quantitation Limit	
Aroclor-1016	ND	33.3	
Arocior-1221	ND	66.6	
Aroclor-1232	ND	33.3	
Aroclor-1242	ND	33.3	
Aroclor-1248	ND	33.3	
Aroclor-1254	ND	33.3	
Aroclor-1260	ND	33.3	

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)=	
Tetrachloro-m-xylene	57	32 - 103	
Decachlorobiphenyl	68	25 - 131	

^{*} These limits are provided for advisory purposes.

Reported by:	Pus	Approved by:	HL
			- i +

POLYCHLORINATED BIPHENYLS (PCB)

by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Extracted: 09715/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
Atoclor-1016	ND	1.0	
Aroclor-1221	ND	2.0	
Aroclor-1232	ND	1.0	
Aroclor-1242	ND	1.0	
Aroclor-1248	ND	1.0	
Aroclor-1254	ND	1.0	
Aroclor-1260	ND	1.0	

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	95	56 - 111	
Decachlorobiphenyl	70	34 - 129	

^{*} These limits are provided for advisory purposes.

Reported by:	COUR	•	Approved by:	l	
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Client: Tetra Tech NU	JS
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Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99-

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration		Quantitation Limit
Aroclor-1016	ND	. •	1.0
Aroclor-1221	ND		2.0
Aroclor-1232	ND		1.0
Aroclor-1242	ND		1.0
Aroclor-1248	ND		1.0
Aroclor-1254	ND		1.0
Aroclor-1260	ND		1.0

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	90	34 - 129

^{*} These limits are provided for advisory purposes.

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Reported by:	600	Approved by:	JL_	<u>_</u>
		Form I PCB		

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-18

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Carget Analyte	Sample Concentration	Quantitation Limit
Aroc 016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

1D = Not detected

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	85	56 - 111
¹ ecachlorobiphenyl	80 -	34 - 129

These limits are provided for advisory purposes.

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eported by:		Approved by:		<u> </u>

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.1
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	100	56 - 111
Decachlorobiphenyl	90	34 - 129

These limits are provided for advisory purposes.

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Reported by:	"\" → \" → \" → \" → \" → \" → \" → \"	Approved by:	

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-16

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
roclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	110	56 - 111
Decachlorobiphenyl	115	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 92

Laboratory ID: 990799-14 _-

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation . · Limit
Aroclor-I016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	75	25 - 131

^{*} These limits are provided for advisory purposes.

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Reported by:	Vi,/	/	Approved by:	

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 79

Laboratory ID: 990799-13

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Arcalor-1016	ND	. 41.5
A. r-1221	ND	83.0
Aroclor-1232	ND	41.5
Aroclor-1242	ND	41.5
Aroclor-1248	ND	41.5
Aroclor-1254	ND	41.5
Aroclor-1260	ND	41.5

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	63 -	25 - 131
•		

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:		
Reported by:	Approved by:	16	

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-12

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

 Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	65	32 - 103
Decachlorobiphenyl	63 •	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	
	**	

Laboratory ID: 990799-11 Client: Tetra Tech NUS Date Sample Extracted: 09/15/99 Client Sample ID: 102-MW-003-01 Date Sample Analyzed: 09/28499 Date Sampled: 09/09/99 Associated Method Blank: P0915-B4 Date Sample Received: 09/09/99 Final Extract Volume (mL):10.0 Matrix: Aqueous Dilution Factor: 1 Concentration in: ug/L (ppb) Sample Concentration Quantitation Target Analyte Limit Aroclor-1016 ND 1.0 ND r-1221 2.0 Aroclor-1232 ND 1.0 Aroclor-1242 ND 1.0 Aroclor-1248 ND 1.0 Aroclor-1254 ND 1.0 Aroclor-1260 ND 1.0 ND = Not detected Surrogate Spike Recovery Surrogate Compound Recovery(%) QC Limits(%)* 80 56 - 111 Tetrachloro-m-xylene 55 34 - 129 Decachlorobiphenyl * These limits are provided for advisory purposes.

Approved by:

Reported by:

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Sample Concentration	Quantitation Limit
ND	. 1.0
ND .	2.0
ND	1.0
	ND ND ND ND ND ND ND ND ND ND ND ND

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	105	34 - 129

^{*} These limits are provided for advisory purposes.

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Reported by:	W3)	Approved by:		

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	. 38.5
Ar ~1221	ND	77.0
Arocior-1232	ND	38.5
Aroclor-1242	ND	38.5
Aroclor-1248	ND	38.5
Aroclor-1254	ND	38.5
Aroclor-1260	ND	38.5

ND = Not detected.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	73	32 - 103
Decachlorobiphenyl	60	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	

⁺ Dry weight basis.

Client: Tetra Tech NUS

Client Sample ID: 100-SS-03

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 94

Laboratory ID: 990799-07

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Arocior-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80.	32 - 103
Decachlorobiphenyl	65	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	1
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Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 84

Laboratory ID: 990799-06

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Sample Concentration	Quantitation Limit	
ND	39.4	
ND	78.8	
ND	39.4	
	Concentration ND ND ND ND ND ND ND ND ND N	

ND = Not detected. + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	32 - 103
Decachlorobiphenyl	68	25 - 131

These	imits	are	provided	tor	advisory	pumposes

Reported by:	141B	Approved by:	K_
reported by.		ripproved by:	

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS			Laborate	ory ID: 990	799-05MS
Client Sample ID: 100-SS-01		, ,	Date Sa	mple Extra	cted: 09/14/99
Date Sampled: 09/08/99	Date Sa	mple Analy	zed: 09/22/99		
Date Sample Received: 09/09/99	Associa	ted Method	Blank: P0914-B4		
Matrix: Soil Final Extract Volume (mL):10					
Percent Solids: 88		•	Dilution	Factor: 1	
			Concent	tration in: u	ıg/Kg (ppb)+
Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration		Matrix Spike Recovery(%)
Aroclor-1016 Aroclor-1260	188 188	ND ND	140 150		74 80
Toward Analysis	Matrix Spike	Matrix Spike	ate RPD(%)	QC Limits(%)*	
Target Analyte	Duplicate Concentration	Duplicate Recovery(%)		RPD	Recovery
Aroclor-1016 Aroclor-1260	120 140	64 74	11.8 6.6	20 20	30 - 150 34 - 174
ND = Not detected + Dry weight basis.					
	· Surr	ogate Spike Recover	у		
Surrogate Compound	Matrix Spi Recovery(ke ‰)	Matrix Spike Duplicate Recovery(%)		QC Limits(%)*
Tetrachloro-m-xylene Decachlorobiphenyl	68 63	•	50 60		32 - 103 25 - 131
* These limits are provided for adviso	ry purposes.				

Approved by:

8770

Reported by:

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	37.6
lor-1221	ND	75.2
Aroclor-1232	ND	37.6
Aroclor-1242	ND	37.6
Aroclor-1248	ND	37.6
Aroclor-1254	ND	37.6
Aroclor-1260	ND	37.6

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	45	32 - 103
Decachlorobiphenyl	57 _	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by: Approved by:	Reported by:	Approved by:	
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Client: Tetra Tech NUS

Client Sample ID: 100-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Sample Concentration	Quantitation Limit
ND	39.8
ND	79.6
ND	39.8
	ND ND ND ND ND ND ND ND ND ND ND

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	70	25 - 131

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Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-03

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
≥ ∴or-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclar-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	68	32 - 103	
Decachlorobiphenyl	73	25 - 131	

				purposes.

Reported by:	Approved by:	
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int: Tetra Tech NUS

int Sample ID: 102-SS-01

e Sampled: 09/08/99

○ Sample Received: 09/09/99

rix: Soil

cent Solids: 87

Laboratory ID: 990799-02

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

get Analyte	Sample Concentration	Quantitation Limit
oclor-1016	ND	38.3
oclor-1221	ND	76.6
oclor-1232	ND	38.3
oclor-1242	ND	38.3
ocior-1248	ND	38.3
oclor-1254	ND	38.3
nctor-1260	ND	38.3

^{) =} Not detected

Surrogate Spike Recovery

rrogate Compound	Recovery(%)	QC Limits(%)*
etrachioro-m-xylene	48	32 - 103
ecachlorobiphenyl	57	25 - 131

These limits are provided for advisory purposes.

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eported by:	Approved by:	1

Dry weight basis.

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-01

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Sample Concentration	Quantitation Limit
ND	37.3
ND	74.6
ND	37.3
	ND ND ND ND ND ND ND ND ND ND ND ND ND

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	68	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	th	
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PCB ANALYSES

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#:	90799		Analytical Method: 3081A Surr. Sol. ID: PW95 0830B Prep Date/Time: 09 1 15											<u>09 1 13/:</u>						
Client:	dra Tech	Nus	Extra	ction M	cthod:	8(1	> 1	417)	nel	_		MS Sol	. ID:	PWM	07.0	13		Analys	is: <u>[23</u>	d
	Blank ID: P00915-B1 LCS ID: P00915LCS1											AddCl S	Spike ID:					Matrix	: <u>ac</u>	news
							*****				E	XTRAC	T CLEA	N-UP S	ECTION	1		INIT & DATE		
IDENTI	FICATION		r	EXT	RACTIO	N SEC	TION				GC/MS				GC/LC			TRA	NSFER	COMMENTS
		Vol/	Surr	MS					Final	Clean	Post		Clean	Post		Post				
Client	Ccimic	Wt	Vol	Vol	%			Basic	Ext	Up	Clean		Up		ļ	Florisil		GC/	GC/	
ID m with	ID .	(ml/g)			Moist	pH	pl (p11	Vel*	Vol*	Vol*	Trans*	Vol*	Vol*	Vol*	Vol*	. 7	MS	LC THB.	
tanı	P00915B1	1000	IMI	_					10ml						/		In	}	01/20/1	
	381								_										_	
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	D: 407037	, ,	Sodiur	n Sulfa	te Lot #:			_ ;	Reagent	s IDs:								Cor	nment Co	des:
	ID:												_ `-[]	GPC	X Y	Z				
Container Lot	#:		Տոււսն	ate Ad	ded By:	<u> </u>	<u> </u>						- :	Silien				l	== Reextr	1
Prepared by:	_m		Witnes	ised By	.: -CX)					V-4	·····	_ [_]	Florisil	1 = 1 #.			AL.	2nd Alic	luat
										. (1)					Lot#:				======	

					Ors	vanic P	renara			CORP			ion Ben	ich She	cis					aliu kas
Project#:	190799		Annly	tical M	cthod:								ol. ID: _			7		Prep Date/Time:/_		
Client: Tetra Tale NUS Extraction Method: 355014										_		MS Sol	. ID:	PW 99	2501.	<i>4</i>		Analysis		
Blank ID: Poq14-R3 LCS ID: Pot14-LCS 3									_			Spike ID:					Matrix:	_50	il	
									•			EXTRAC	T CLEA	N-UP S	ECTIO	4		INIT &	DATE	
IDENT	FICATION			EXT	RACTIO	ON SEC	TION				GC/MS				GC/LC			TRAN	SFER	COMMENTS
Client	Ceimic	Vol/ Wi	Surr Vol		76		Acid	Basic	Finnl Ext	Clean Up	Post Clenn	Vol	Clean Up	Post Clean	Florisil	Post Florisil	Vol	GC/	GC/	
ID	ID	(ml/g)	(µl)	(µl)	Moist	рH	рН	рH	V ₀ 1•	1	COMPANIES OF STREET	Trans*	-		4	Vol*	Trans*	MS	LC	
102-55-03	P0749-13	30.1	woo	1	2		1	-,	Yie		n		2R	TIR.	MR		14	1_	9.33.44	
102-55-04	-14	324	1	1	08		1	1	+		7/15/	(9	1	<u> </u>	1/	1/90	L	4	4/27/69	
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Final Solvent ID: Supervisor Init: OA GPC X Y Z.											ment Co	•								
Container Lot #: Surrogate Added By: MK Silica RE = Reextract Prepared by: MQ Witnessed By: AL 2nd Aliquot Lot #: Lot #:																				

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				1				C	FIMIC	CORP	ORAT	ION								,
					Огр	ganic P	герага						tion Ben	ich She	ets					9/14/99
Project#: 9	90791		Analy	rtical M	fethod:					_	•		ol. 1D: _			0/3		Prep D	atc/Time:	1/14/99
	tra Tech 1005	•			Acthod:					_		MS Sol	. ID:	TW 99	0501	4		Analysis: Pest		
Blank ID: 9					72914 - L					-			Spike ID:					Mntrix:		
		I		-								EXTRAC	OT ELEA	N-UP S	ECTION	4		INIT (∿ D∧TE	
IDENT	IFICATION			ЕХТ	RACTIO	ON SEC	TION				GC/MS				GC/LC			TRA	NSFER	COMMENT
		Vol/	Surr	MS					Final	Clean	Post		Clean	Post		Post				
Client	Ccimic	Wt	Vol	Vol	1		į	Basic	1	Up	Clenn	1	Up	I	Florisit	ł	1	GC/	GC/	
ID	ID ID	(ml/g)	î —	(µl)	Moist	l bit	pH	l pH	Vol*	Vol*	Vol*	Trans*	(,	Vol*		Vol*	Trans*	{ 	1.87 41	
	Pog14-133	30.0	2000	†	-		1	-	tre		<u> </u>	<i> /-</i>	2re	510	<u> </u>	I – /	The	T	1,87 44	
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102-55-02	P0794-01	30,1	<u> </u>	1	12			_ _		ļ			<u> -</u>		ļ		<u> </u>	 		
102-75-01	-07	33.4			13										14/					
12-50-51	-03	30,13			0.3						10	1			\"\(\frac{1}{2}\)	1				
100-58-02	~ 34	30.2			17						12/									
100-55-01	-0.5	30.5			12						1									
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	-05 MOR	30.0		1							7					V				
166-55-00	v (s	30.0		T	16					7					/	11		1	3/14/19	
100-56-8-5	-07	30, L.			صا0										1/4	गिन्द		1	6.77 14	
100-55-24	-05	31,4			124	,	1	,		7				1	/				1	
102-55-05	-12	33.1	1	+	0"t		\ ``	1/2	1				त	+	/		1	Ļ	1	
Final Solvent Container Lot	ID: N(725.5/,		Sodiu Super Surro	n Sulfa visor li gate Ac	ate Lot # nit: Ided By:	₩. 100	515 ·	5 / -	Reagen		ll volum	cs are in	milliliter		$x \stackrel{\text{oth}}{=} V$				ninent Co = Reexti	•
Prepared by:	بعاك				λ: C			_	***	* *			_ 🗆	Florisil	Tot #:	1		ΛL	2nd **;	quot

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Ilient: Tetra Tech NUS
Ilient Sample ID: 100-SS-01
Date Sampled: 09/08/99

Date Sample Received: 09/09/99

-fatrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05MS

Date Sample Extracted: 09/14/99 Date Sample Analyzed: 09/29/99 Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

farget Analyte	Spike	Sample	Matrix Spike	Matrix Spike
	Added	Concentration	Concentration	Recovery(%)
ulpha-BHC peta-BHC peta-BHC ielta-BHC fienta-BHC fientachlor Aldrin Heptachlor Epoxide Endosulfan I Dieldrin 4.4'-DDE Endrin Endosulfan II 4.4'-DDD Endosulfan Sulfate 4.4'-DDT Methoxychlor Endrin Ketone Endrin Aldenyde	1999999999999999999999999999999999999	אממממממממממממממממממממממממממממממממממממממ	5.2 6.4 6.0 6.4 6.7 6.1 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	7:047:04:06:07774990:00777

Tagge Angles	Mairix Soike Duplicate	Matrix Spike Duplicate	RPD(%)	QCL	imits(%)*
Target Analyte	Concentration	Recovery(%)	RPD(70)	RPD	Recovery
alpha-BHC beta-BHC delta-BHC gamma-BHC Heptachlor Aldrin Heptachlor Epoxide Endosultan I	133432449 1432449 14323449 1432355649	883+833+421+4988999++0	85.7 64.5 74.5 74.5 766.5 767.5 677.5 679.5 766.5 766.5 766.5 91.5	20 20 20 20 20 20 20 20 20 20 20 20 20 2	38 - 140 32 - 132 - 132 - 133 - 130 - 130 - 130 - 130 - 130 - 128 - 1

ND = Not detected ÷ Dry weight basis.

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicaté Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	25	57	32 - 103
Decachlorobiphenyl	35	68	25 - 131

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LABORATORY CONTROL SUMMARY ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS

3lank Spike ID: P0915-LCS1

Matrix: Aqueous

Ceimic Project: 990799

Date Sample Analyzed:

09/29/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B1

Concentration in: ug/L (ppb)

larget Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Jpha-BHC	0.50	0.39	78	49 - 150
peta-BHC	0.50	0.39	78	60 - 135
lelta-BHC . · ·	0.50	0.40	80	32 - 140
amma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldria	0.50	0.41	82	58 - 132
Teptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.31	62	69 - 137
(,4'-T)	0.50	0.49	98 . • •	49 - 141
Ende in Sulfate	0.50	0.44	88	51 - 144
-,4'-DDT	0.50	0.43	86	64 - 146
-fethoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

VD = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Fetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

These limits are provided for advisory purposes.

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eported by:	(C1)	·	Approved by:		

LABORATORY CONTROL SUMMARY ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Heat: Tetra Tech NUS

lank Spike ID: P0914-LCS3

tatrix: Soil

Ceimic Project: 990799

Date Sample Analyzed:

09/29/99

Date Sample Prepared: 09/14/99

Associated Method Blank: P0914-B3

Concentration in: ug/Kg (ppb)+

'arget Analyte	Spike Added	Blank Spike Result	Blank Spike Recov e ry(%)	QC Limits(%)*
loita-BHC	17	16	94	38 - 140
eta-BHC	17	16	94	52 - 132
lta-BHC	17	17	100	39 - 99
≟mma-BHC	17	16	94	44 - 131
teptachlor	17	15	88	49 - 116
Adria	17	17	100	39 - 130
leptachlor Epoxide	17	17	100	44 - 123
adosulfan I	17	12	71	56 - 130
)ieldrin	17	17	100	56 - 123
4'-DDE	17	19	112	47 - 128
adria	17	19	112	54 - 144
ndosulfan II		14	82	54 - 134
.4'-DDD	17	19	112 . • •	52 - 123
adosulfan Sulfate	17	i9	112	56 - 130
,4'-DDT	ī <i>†</i>	18	106	54 - 142
fethoxychlor	î 7	19	112	64 - 148
indrin Ketone	i 7	18	106	58 - 136
Indrin Aldehyde	17	21	124	49 - 112

D = Not detected
Dry weight basis.

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	32 - 103
Decachlorobiphenyl	93	25 - 131

These limits are provided for advisory purposes.

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METHOD BLANK ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS

3lank ID: P0915-B1

Matrix: Aqueous

Ceimic Project: 990799

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
loha-BHC	ND	0.050
eta-BHC	ND	0.050
elta-BHC	ND	0.050
amma-BHC	ND	0.050
[eptachlor	ND	0.050
Jdrin	ND	0.050
Isptachlor Epoxide	ND	0.050
adosulfan I	ND	0.050
∍ieldrin	ND	0.10
,4'-DDE	ND	0.10
adrin	ND	0.10
ndosulfan II	ND	0.10
,4'-DDD	ND	0.10
adosulfan Sulfate	ND	0.10
.41-Γ	ND	0.10
(etho. , alor	ND	0.50
adrin Ketone	ND	0.10
ndrin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
imma-Chlordane	ND	0.050
oxaphana	ND	5.0
roclor-1016	ND	1.0
roclor-1221	ND	2.0
roclor-1232	ND	1.0
rector-1242	ND	1.0
roclor-1248	ND	1.0
racior-1254	ND	1.0
toclor-1260	ND	1.0

D = Not detected

Surrogate Spike Recovery

Recovery(%)	QC Limits(%)*
85 75	56 - 111 34 - 129
	0.5

these limits are provided for advisory purposes.

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METHOD BLANK ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Hient: Tetra Tech NUS

3lank ID: P0914-B3

datrix: Soil

Ceimic Project: 990799

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Concentration in: ug/Kg (ppb)

Carget Analyte	Sample Concentration	Quantitation — Limit
dpha-BHC	ND	1.7
era-BHC	ND	1.7
ielta-BHC	ND	1.7
jamma-BHC	ND	1.7
-leptachlor	ND	1.7
Aldrin	ND	1.7
Teptachlor Epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	1.7 3.3 3.3 3.3 3.3 3.3 - · · 3.3
1.4'-DDE	ND	3.3
andrin	ND	3.3
indosulfan II	ND	3.3
÷,4'-DDD	ND	. 3.3
Endosulfan Sulfate	ND	3.3
÷,4'-DDT	ND	3.3
Methoxychlor	ND	17
Endrin Ketone	ND	3.3
Endrin Aldehyde	ND	3.3 3.3
lipha-Chlordane	ND	1.7
ुबनागाव-Chlordane	ND	1.7
Toxaphene	ND	165
Aroclor-1016	ND	33.0
Aroclor-1221	ND	66.0
Aroclor-1232	ND	33.0
Aroclor-1242	ND	33.0
Aroclor-1248	ND	33.0
Aroclor-1254	ND	33.0
Aroclor-1260	ND	33.0

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	63	25 - 131

^{*} These limits are provided for advisory purposes.



Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Mairix: Aqueous

Laboratory ID: 990799-20

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
ырћа-ВНС	ND	0.050
pera-BHC	ND	0.050
ielta-BHC · · ·	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Teptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
↓,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
3,4'	ND	0.10
Ende an Sulfate	ND	0.10
,4'-DDT	ND	0.10
Aethoxychlor	ND	0.50
Indrin Ketone	ND	0.10
Indrin Aldehyde	ND	0.10
Ipha-Chlordane	ND	0.050
amma-Chlordane	ND	0.050
oxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
\roclor-1260	ND	1.0

 $\sqrt{D} = Not detected$

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)₹	
errachloro-m-xylene	65	56 - 111	
Decachlorobiphenyl	50	34 - 129	

These limits are provided for advisory purposes.

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lent Sample ID: 100-MW-DD-01

ate Sampled: 09/10/99

ate Sample Received: 09/11/99

latrix: Aqueous

Laboratory ID: 990799-19

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

arget Analyte	Sample . Concentration	Quantitation Limit
pha-BHC	ND	0.050
ka-BHC	ND	0.050
elta-BHC	ND	0.050
amma-BHC	ND	0.050
eptachlor	ND	0.050
!drin	ND	0.050
eptachlor Epoxide	ND	0.050
adosulfan I	ND	0.050
ieldrin	ND	0.10
. +'-DDE	ND	0.10
.drin	ND	0.10
adosulfan II	ND	0.10
,4'-DDD	ND	0.10
ndosulfan Sulfate	ND	0.10
,4'-DDT	ND	0.10
(ethoxychlor	ND	0.50
ndrin Ketone	ND	0.10
indrin Aldehyde	ND	0.10
lpha-Chlordane	ND	0.050
amma-Chlordane	ND	0.050
oxaphene	ND	5. 0
croclor-1016	ND	1.0
vroclor-1221	ND	2.0
kroclor-1232	ND	. 1.0
sroclor-1242	ND	1.0
coclor-1248	ND	1.0
kroclor-1254	ND	1.0
kroclor-1260	ND	1.0
D = Not detected		

eurrogate Compound	Recovery(%)	QC Limits(%)*
Fetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	60	34 - 129

Tigese limits are provided for advisory purposes.

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Hient: Tetra Tech NUS

Hient Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

fatrix: Aqueous

Laboratory ID: 990799-18

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

arget Analyte	Sample . Conceptration	Quantitation Limit
pha-BHC eta-BHC	ND ND	0.050 0.050
atta-BHC	ND ND	0.050 0.050
eptachlor	ND	0.050
ldrin	ND	0.050
eptachlor Epoxide	ND	0.050
adosulfan I	ND	0.050
ieldrin	ND	0.10
4'-DDE	ND ND	0.10
adrin	ND ND	0.10 0.10
adosulfan II 4'-DDD	ND	0.10
ado a Sulfate	ND	0.10
4'-1-1	ND	0.10
ethoxychlor	ND	0.50
ndrin Ketoze	ND	0.10
idrin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
mma-Chlordane	ND	0.050
oxaphene	ND ND	5.0
roclor-1016	ND ND	1.0
toclor-1221	ND ND	2.0 1.0
toclor-1232	ND	1.0
roclor-1242 roclor-1248	ND	1.0
octor-1248	ND	1.0
octor-1254	ND	1.0
1		

D = Not detected

Surrogate Spike Recovery

rrogate Compound	Recovery(%)	QC Limits(%)*
trachloro-m-xylene	65	56 - 111
cachlorobiphenyl	60	34 - 129

Inese limits are provided for advisory purposes.

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Client:	Terra	Tech	NIIS	
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Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample . Concentration	Quantitation Limit
alpha-BHC beta-BHC delta-BHC delta-BHC Heptachlor Aldrin Heptachlor Epoxide Endosulfan I Dieldrin 4,4'-DDE Endrin Endosulfan II 4,4'-DDD Endosulfan Sulfate 4,4'-DDT Methoxychlor Endrin Ketone Endrin Aldehyde alpha-Chlordane gamma-Chlordane Toxaphene Aroclor-1221 Aroclor-1232 Aroclor-1242	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.1
Aroclor-1248 Aroclor-1254 Aroclor-1260	ND ND ND	1.0 1.0 1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

^{*} These limits are provided for advisory purposes.

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Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-16

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC · · ·	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-TOD End an Sulfate	ND ND	- · · 0.10 0.10
End in Sulfate 4,4'-DDT	ND	0.10
	ND	0.10
Methoxychlor Eadrin Ketone	ND ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
Tetrachloro-m-xylene	65	56 - 111
Decachlorobiphenyl	65	34 - 129

^{*} Laese limits are provided for advisory purposes.

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Client: Tetra Tech NUS

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 92

Laboratory ID: 990799-14

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Farget Analyte	Sample Concentration	Quantitation Limit
upha-BHC	ND	1.8
peta-BHC	ND	1.8
ielta-BHC	ND	1.8
¿amma-BHC	ND	1.8
-ieptachlor	ND	1.8
Aldrin	ND	1.8
Teptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
ŧ,4'-DDE	ND	3.6
Endrin	ND	3.6 3.6 3.6 3.6 3.6 3.6 3.6
Endosulfan II	ND	3.6
,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
:,4'-DDT	ND	3.6
Methoxychlor	ND	18
andrin Ketone	ND	3.6
Endrin Aldehyde	ND	3.6
ilpha-Chlordane	ND	1.8
garema-Chlordane	ND	1.8
Toxapheae	ND	180
Arocior-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected + Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	÷8	32 - 103
Decachiorobiphenyl	50	25 - 131

* Inese limits are provided for advisory purposes.

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Client: Tetra Tech NUS
Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Aatrix: Soil

ercent Solids: 79

Laboratory ID: 990799-13

Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit
Ipha-BHC eta-BHC elta-BHC amma-BHC Ieptachlor Epoxide Indosulfan I Dieldrin A'-DDE Indrin Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II A'- Indosulfan II Indosu	ND ND ND DD NN NN NN NN NN NN NN NN NN N	2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1
400101 1200	· •	

The Not detected by Weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Cetrachloro-m-xylene	95	32 - 103	
Decachlorobiphenyl	57	25 - 131	

these limits are provided for advisory purposes.

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Reported by:	//クデン		Approved by:	13/	

Hient: Tetra Tech NUS
Hient Sample ID: 102-SS-05

hate Sampled: 09/09/99

late Sample Received: 09/09/99

latrix: Soil

ercent Solids: 93

Laboratory ID: 990799-12

Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3 Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

uget Analyte	Sample Concentration	Quantitation Limit
lpha-BHC	ND	1.8
eta-BHC	ND	1.8
elta-BHC	ND	1.8
amma-BHC	ND -	1.8
[eptachlor	ND	1.8
ddrin	ND	1.8
leptachlor Epoxide	ND	1.8 1.8
Indosulfan I	ND	1.8
)ieldrin	ND	3.6 3.6
,4'-DDE	ND	3.6
adrin	ND	3.6
:ndosulfan II	ND	3.6
,4'-DDD	ND.	3.6
indosulfan Sulfate	ND	3.6
, ≟'- DDT	ND	3.6 18 3.6
dethoxychlor	ND	18
indria Ketone	ND	3.6
indrin Aldehyde	ND	3.6
lpha-Chlordane	ND	1.8 1.8
amma-Chlordane	ND	1.8
oxaphene	ND	180
Aroclor-1016	ND	36.0
croclor-1221	ND	72.0
roclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND ND	36.0
roclor-1260	ND	36.0
TY = Vo. 43730134		

ND = Not detected - Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	60	25 - 131

These limits are provided for advisory purposes.

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anamad bus	/////	•	Approved by:	(V)	
Reported by:	<u> </u>		Approved by:		

Client: Tetra Tech NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC beta-BHC delta-BHC	ND ND	0.050 0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin Heptachlor Epoxide	ND ND	0.050 0.050 0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endomifan II	ND	0.10
4,4000	ND	0.10
Endocaran Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1010 Aroclor-1221 Aroclor-1232	ND ND	2.0 1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1250	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	40	34 - 129

* laese limits are provided for advisory purposes.

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eported by:	<i>i</i> (. <i>O</i> .)		Approved by:	

lient: Tetra Tech NUS

dent Sample ID: 102-MW-004-01

ate Sampled: 09/09/99

ate Sample Received: 09/11/99

atrix: Aqueous

Laboratory ID: 990799-10

Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99

Associated Method Blank: P0915-B1 Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

rget Analyte	Sample Concentration	Quantitation Limit	
oba-BHC	ND	0.050	
na-BHC	ND	0.050	
na-BHC	ND	0.050	
nama-BHC	ND	0.050	
eptachlor	ND	0.050	
ldrin	ND	0.050	
eptachlor Epoxide	ND	0.050	
adosulfan I	ND	0.050	
leldrin	ND	0.10	
.4'-DDE	ND	0.10	
ndrin ndosulfan II ,4'-DDD ndosulfan Sulfate	ND ND ND ND	0.10 0.10 0.10 0.10 0.10	
.4'-DDT	ND	0.10	
lethoxychlor	ND	0.50	
adrin Ketone	ND	0.10	
adrin Aldehyde	ND	0.10	
ipna-Chlordane	ND	0.050	
amma-Chlordane	ND	0.050	
oxapnene	ND	5.0	
.roclor-1016	ND	1.0	
croclor-1221	ND	2.0	
croclor-1232	ND	1.0	
croclor-1242	ND	1.0	
croclor-1248	ND	1.0	
croclor-1254	ND	1.0	
Aroclor-1260	ND	1.0	

D = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Fetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

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: vd.bsmogs/	₹00°.		Approved by:	ij	

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Aatrix: Soil

Percent Solids: 83

Laboratory ID: 990799-08

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit	
Ipha-BHC	ND	2.0	
eta-BHC	ND	2.0	
elta-BHC · · ·	ND	2.0	
amma-BHC	ND	2.0	
leptachlor	ND	2.0	
Aldrin	ND	2.0	
Teptachlor Epoxide	ND	2.0	
indosulfan I	ND	2.0	
)ieldrin	ND	4.0	
,4'-DDE	ND	4.0	
indrin	ND	4.0	
ndosulfan II	ND	4.0	
٠,4' ()	ND	4.0	
indo an Sulfate	ND	4.0	
,4'-DDT	ND	4.0	
fethoxychlor	ND	20	
Indrin Ketone	ND	4.0	
indrin Aldehyde	ND	4.0	
lpha-Chlordane	ND	2.0	
amma-Chlordane	ND	2.0	
oxaphene	ND	198	
Aroclor-1016	ND	39.6	
Aroclor-1221	ND	79.2	
Aroclor-1232	ND	39.6	
Aroclor-1242	ND	39.6	
\roclor-1248	ND	39.6	
Aroclor-1254	ND	39.6	
\roclor-1260	ND	39.6	

D = Not detected
Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*	
letrachloro-m-xylene	48	32 - 103	
Decachlorobiphenyl	55	25 - 131	

These limits are provided for advisory purposes.

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lepoπed by:	((C) (1)		Approved by:	1/4 /	
reported by.	1/0 - 1		White Aca of .	1\0	

lient: Tetra Tech NUS lient Sample ID: 100-SS-03 are Sampled: 09/08/99

ate Sample Received: 09/09/99

fatrix: Soil

ercent Solids: 94

Laboratory ID: 990799-07

Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit
ipha-BHC	ND	1.8
eta-BHC	ND	1.8
elta-BHC	ND	1.8
amma-BHC	ND	1.8
ieptachlor	ND	1.8
Aldrin	ND	1.8
leptachlor Epoxide	ND	1.8 1.8 1.8
indosulfan I	ND	1.8
⊃ieldrin ⁻	ND	3.5
4,4'-DDE	ND	3.5 3.5
Endrin	ND	3 <i>.</i> 5
Endosulfan II	ND	3.5
:,4'-DDD	ND	3.5 . · · 3.5
Endosulfan Sulfate	ND	3.5
÷,4'-DDT	ND	3.5
Methoxychlor	ND	18
Endrin Ketone	ND	3.5
Endrin Aldehyde	ND	3.5
lpha-Chlordane	ND	1.8
amma-Chlordane	ND	1.8
Toxaphene	ND	175
Aroclor-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Areclor-1260	ND	35.0
VD = Not detected		

ZD = Not gerected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	32 - 103
Decachlorobiphenyl	60	25 - 131

These limits are provided for advisory purposes.

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n	1,11,2			1.81	
Reported by:	/L/U L/		Approved by:	1:10	
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⁺ Dry weight basis.

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 84

Laboratory ID: 990799-06

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Farget Analyte	Sample Concentration	Quantitation Limit
Прра-ВНС	ND	2.0
eta-BHC	ND	2.0
ielta-BHC	ND	2.0
gamma-BHC	ND	2.0
Heptachlor	ND	2.0
Aldrin	ND	2.0
leptachlor Epoxide	ND	2.0
Endosulfan I	ND	2.0
Dieldrin T	ND	4.0
4,4'-DDE	ND	4.0
Endrin	ND	4.0
Endosulfan II	ND	4.0
↓,4')	ND	4.0
Endoan Sulfate	ND	4.0
\$,4'-DDT	ND	4.0
Methoxychlor	ND	20
Endrin Ketone	ND	4.0
Endrin Aldehyde	ND	4.0
네pha-Chlordane	ND	2.0
ramma-Chlordane	ND	2.0
Foxaphene	ND	199
Aroclor-1016	ND	39.7
Aroclor-1221	ND	79.4
Aroclor-1232	ND	39.7
Aroclor-1242	ND	39.7
Aroclor-1248	ND	39.7
Aroclor-1254	ND	39.7
Aroclor-1260	ND	39.7

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Tetrachloro-m-xylene	50	32 - 103	
Decachlorobiphenyl	57	25 - 131	

^{*} Inese limits are provided for advisory purposes.

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Reported by:	NOS!	·	Approved by:	

TARGET COMPOUND LIST ORGANOCHLORINE PESTICIDES

by SW846 Method 8080

llient: Tetra Tech NUS

Hient Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Aatrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Sample Concentration	
lpha-BHC	ND	1.9
्टरब-BHC	ND	1.9
elta-BHC	ND	1.9
;amma-BHC	ND	1.9
leptachlor leptachlor	ND	1.9
Aldrin	ND	1.9
Teptachlor Epoxide	ND	1.9
Indosulfan I	ND	1.9
Dieldrin	ND	3.7
.4'-DDE	ND	3.7
ndrin	ND	3.7
andosulfan II	ND	3.7
.4'-DDD	ND	· · · 3.7
Endosulfan Sulfate	ND	3.7
.,4*-DDT	ND	3.7
-lethoxychlor	ND	19
adrin Ketone	ND	3.7
Endrin Aldehyde	ND	3.7
dpha-Chlordane	ND	1.9
;amma-Chlordane	ND	1.9
Foxaphene	ND	187
`roclor-1016	ND	37.3
roclor-1221	ND	74.6
coclor-1232	ND	37.3
croclor-1242	ND	37.3
Aroclor-1248	ND	37.3
Aroclor-1254	ND	37.3
Aroclor-1260	ND	37.3

ND = Not detected

→ Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	32 - 103
Decachlorobiphenyl	123	25 - 131

^{*} These limits are provided for advisory purposes.

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epoπed by:			Approved by:	1.3	
eported by .			reperonation.	1 40	

Nient: Tetra Tech NUS Nient Sample ID: 100-SS-02

Tate Sampled: 09/08/99

Date Sample Received: 09/09/99

Aztrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

'arget Analyte	Parget Analyte Sample Concentration	
Ipha-BHC eta-BHC elta-BHC amma-BHC feptachlor Iddrin feptachlor Epoxide indosulfan I ieldrin ,4'-DDE indrin indosulfan II ,4'-' indo. a Sulfate ,4'-DDT fethoxychlor indrin Ketone indrin Aldehyde Ipha-Chlordane amma-Chlordane oxaphene vroclor-1016 vroclor-1221 vroclor-1232	Sample Concentration ND ND ND ND ND ND ND ND ND ND ND ND ND	Quantitation Limit 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 20 4.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2
Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	ND ND ND ND	39.9 39.9 39.9 39.9

VD = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*	
Fetrachloro-m-xylene	8 <i>5</i>	32 - 103	
Decachlorobiphenyl	90	25 - 131	

Linese limits are provided for advisory purposes.

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	シバル			71 ×	
epomed by:	÷		Approved by:	(30)	

Hient: Tetra Tech NUS
Hient Sample ID: 102-SU-01

Date Sampled: 09/08/99 Date Sample Received: 09/09/99

rate Sample Received: 09/09/99

fatrix: Soil

'ercent Solids: 93

Laboratory ID: 990799-03

Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3 Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit	
loha-BHC	ND	1.8	
eta-BHC	ND	1.8	
lelta-BHC	ND	1.8 1.8 1.8 1.8	
amma-BHC	ND	1.8	
ieptachlor	ND	1.8	
Aldria	ND	1.8	
laptachlor Epoxida	ND	1.8	
andosulfan I	ND	1.8	
Dieldrin	ND	3.6	
∴+'-DDE	ND	3.6	
la dria	ND	3.6 3.6 3.6 3.6	
andosulfan II	ND	3.6	
4.4'-DDD	ND	3.6	
Endosulfan Sulfate	ND	3.6	
!,4"-DDT	ND	3.6	
«(ethoxychlor	ND	18 3.6 3.6	
Endrin Ketone	ND	3.6	
Endrin Aldehyde	ND	3.6	
upha-Chlordane	ND	1.8	
gamma-Chlordane	ND	1.8	
foxaphene	ND	180	
Aroclor-1016	ND	36.0	
Arocior-1221	ND	72.0	
Aroclot-1232	ND	36.0	
Arcelor-1242	ND	36.0	
Aroclor-1248	ND	36.0	
Aroclor-1254	ND	36.0	
Aroclor-1260	ND	36.0	
STO = Not datacted			

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)*
Fetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	85	25 - 131

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	V. G.	•		IV.	
Reported by: _	3.45	•	Approved by:	K.	
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lient: Tetra Tech NUS

lient Sample ID: 102-SS-01 ate Sampled: 09/08/99

ate Sample Received: 09/09/99

fatrix: Soil

ercent Solids: 87

Laboratory ID: 990799-02

Date Sample Extracted: 09/14/99 Date Sample Analyzed: 09/29/99 Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb) ÷

arget Analyte	Sample Concentration	Quantitation Limit	
pha-BHC ha-BHC ha-BHC ha-BHC ha-BHC eptachlor ldrin eptachlor Epoxide hdosulfan I heldrin 4'-DDE hdrin hdosulfan II 4'-F hdo a Sulfate 4'-DDT ethoxychlor hdrin Ketone hdrin Aldehyde pha-Chlordane hmma-Chlordane mma-Chlordane coxaphene roclor-1211 roclor-1221 roclor-1242 roclor-1254 roclor-1260	ND NN NN NN NN NN NN NN NN NN NN NN NN N	1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8	

D = Not detected Dry weight basis.

Surrogate Spike Recovery

rttogate Compound	Recovery(%)	QC Limits(%)*	
etrachloro-m-xylene	48	32 - 103	
ecachlorobiphenyl	57	25 - 131	

These limits are provided for advisory purposes.

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	~			1.87	
	(160)			W -	
eported by:	200		Approved by:	N	

dent: Tetra Tech NUS

lient Sample ID: 102-SS-02

ate Sampled: 09/08/99

ate Sample Received: 09/09/99

atrix: Soil

arcent Solids: 88

Laboratory ID: 990799-01

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/29/99

Associated Method Blank: P0914-B3

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

arget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	1.9
ita-BHC	ND	1.9
elta-BHC	ND	1.9
னாa-BHC	ND	1.9
ept achlor	ND	1.9
!d̄rin	ND	1.9
eptachlor Epoxide	ND	1.9
adosulfan I	ND	1.9
eldrin	ND	3.8
4'-DDE	ND	3.8 3.8 3.8 3.8 3.8 3.8 3.8
adrin	ND	3.8
adosulfan II	ND	3.8
÷'-DDD	ND	3.8
adosulian Sulfate	ND	3.8
4'-DDT	ND	3.8
lathoxychlor	ND	19
adrin Ketone	ND	3.8 3.8
adrin Aldehyde	ND	3.8
pha-Chlordane	ND	1.9
imma-Chlordane	ND	1.9
oxaphene	ND	189
roclor-1016	ND	37.8
croclor-1221	ND	75.6
rocior-1232	ND	37.8
.roclor-1242	ND	37.8
.roclor-1248	ND	37.8
godlor-1254	ND	37.8
.coclor-1260	ND	37.8

D = Not detected

Surrogate Spike Recovery

итодате Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	÷5	32 - 103
ecachlorobiphenyl	57	25 - 131

I nese limits are provided for advisory purposes.

eponed,by: _	Jr.	 Approved by:	**	

⁻ Dry weight basis.

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Reported by: _

Client Sample ID: FB091099-01		Laboratory ID: 990807-01
Date Sampled: 09/10/99		Date Sample Analyzed: 09 23/99
Date Sample Received: 09/11/99		Associated Method Blank: V150923-B1
Matrix: Aqueous		Dilution Factor: 1
		Concentration in: µg/L (ppb)
Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
vl Chloride	ND	1
roethane	ND	1
Methylene Chloride	ND	1
Acetone	8	5
Carbon Disulfide	ND	· •
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	. 1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	l
trans-1,3-Dichloropropene	ND	l i
Irichloroethene	ND	! !
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	l \$
2-Hexanone	ND	5 5
4-Methyl-2-Pentanone	ND	3

Approved by:

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Chem. Icha Icell 1100	CI	ient:	Tetra	Tech	NUS
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Client Sample ID: FB091099-01

Laboratory ID: 990807-01

Date Sampled: 09/10/99

Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99

Associated Method Blank: V150923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	ı
Styrene	ND ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	95	62 - 139
Dibromofluoromethane	97	75 - 12 5
Toluene-d8	109	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by:	<i>Y</i>	Approved by:	, ,
		-	

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

ient:	Тетга	Tech	NUS

Client Sample 1D: ER091099-01 Laboratory 1D: 990807-02

Date Sampled: 09/10/99 Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99 Associated Method Blank; V150923-B1

Matrix: Aqueous Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte		Sample Concentration	Quantitation Limit
Chloromethane		ND	1
Bromomethane		ND	ſ
* 'evl Chloride		ND	ì
proethane		ND	•
Methylene Chloride		ND	t
Acetone	•	ND	5
Carbon Disulfide		ND	l
1,1-Dichloroethene		ND	1
l, l-Dichloroethane		ND	1
1,2-Dichloroethene (total)		ND	1
Chloroform		ND	i
1,2-Dichloroethane		ND	I
2-Butanone		ND	5
1,1,1-Trichloroethane		ND	1
Carbon Tetrachloride		ND	1
Bromodichloromethane		ND	i
1,2-Dichloropropane		ND	1
trans-1,3-Dichloropropene		ND	i
Trichloroethene	~¥*)	ND	ſ
Dibromochlorometh ane		ND	1
1,1,2-Trichloroethane		ND	1
Benzene	٠,٠	ND	1
cis-1,3-Dichloropropene		ND	1
Bromoform		ND	1
2-Hexanone .		ND	5
4-Methyl-2-Pentanone		ND	5

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

-

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	l
1,1,2,2-Tetrachloroethane	ND	ı
Toluene	2	l
Chlorobenzene	ND	1
Ethylbenzene	ND	ı
Styrene	ND	l
Total Xylenes	ND	· 1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _______ Approved by: ________

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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١. ١	nem		CITA	160	11	IN L	1.3	

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

ome bumple rinary zed: 03/23/33

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
Chloromethane	ND	l	
Bromomethane	ND	ı	
Yinyl Chloride	ND	1	
oroethane	ND	l	
Methylene Chloride	ND	1	
Acetone	10	5	
Carbon Disulfide	ND	1	
I, I-Dichloroethene	ND	ι	
I, I-Dichloroethane	ND	1	
1,2-Dichloroethene (total)	ND	l	
Chloroform	ND	l	
1,2-Dichloroethane	ND	1	
2-Butanone	ND	5	
I, I, I-Trichloroethane	ND	1	
Carbon Tetrachloride	ND	. 1	
Bromodichloromethane	ND	1	
l,2-Dichloropropane	ND	1	
rans-1,3-Dichloropropene	ND	1	
Trichloroethene	ND	l	
Dibromochloromethane	ND	1	
1,1,2-Trichloroethane	ND	1	
Benzene	ND	1	
cis-1,3-Dichloropropene	ND	1	
Bromoform	ND	. 1	
2-Hexanone	ND	5	
4-Methyl-2-Pentanone	ND	5	

Reported by:	X	Approved by:	G/ (
Reported by:	<u>U</u>	1.pp.o.uz oy.	

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Laboratory 1D: 990807-03

Date Sampled: 09/10/99

Date Sample Analyzed: 09'23/99

Date Sample Received: 09/11/99

Associated Method Blank: V120923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	t
Total Xylenes	ND -	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	110	75 - 125

Reported by:	 Approved by:	(d) (

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1.1-Dichloroethene	5	5	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

hese limits are provided for advisory purposes.

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	93	62 - 139	
Dibromofluoromethane	97	75 - 125	
Toluene-d8	105	75 - 125	
Bromofluorobenzene	115	75 - 125	

Reported by:	\forall	Approved by:	G/(

SEMIVOLATILE ORGANIC ANALYSES

ER091099-01

Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099 Matrix: (soil/water) WATER Lab Sample ID: 990807-02 Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997 Level: (low/med) LOW Date Received: 09/11/99 % Moisture: _____ decanted: (Y/N) <u>N___</u> Date Extracted: <u>09/15/99</u> Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/23/99 Injection Volume: 2.0(uL) Dilution Factor: ____1.0 GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q 108-95-2----Phenol U 111-44-4-----bis(2-Chloroethyl)Ether 5 U 95-57-8-----2-Chlorophenol 5 U 541-73-1----1,3-Dichlorobenzene 5 U 106-46-7-----1,4-Dichlorobenzene 5 U 100-51-6-----Benzyl Alcohol 5 U 5 95-50-1----1,2-Dichlorobenzene U 95-48-7----2-Methylphenol 5 U 5 108-60-1----2,2'-oxybis(1-Chloropropane) U 106-44-5-----4-Methylphenol 5 U 5 621-64-7----N-Nitroso-Di-n-Propylamine U 67-72-1-----Hexachloroethane 5 U 5 98-95-3-----Nitrobenzene U 5 78-59-1------Isophorone U 5 U 88-75-5-----2-Nitrophenol 105-67-9----2,4-Dimethylphenol 5 U 65-85-0-----Benzoic Acid 5 U 5 U 111-91-1-----bis (2-Chloroethoxy) Methane 120-83-2----2,4-Dichlorophenol 5 U 120-82-1-----1,2,4-Trichlorobenzene 5 U 5 91-20-3-----Naphthalene U 106-47-8-----4-Chloroaniline 5 U 5 87-68-3-----Hexachlorobutadiene U 59-50-7-----4-Chloro-3-Methylphenol 5 U 5 91-57-6----2-Methylnaphthalene U 77-47-4------Hexachlorocyclopentadiene 5 U 88-06-2----2,4,6-Trichlorophenol 5 IJ 95-95-4----2,4,5-Trichlorophenol 10 U 91-58-7----2-Chloronaphthalene U 5 U 10 88-74-4----2-Nitroaniline 131-11-3-----Dimethyl Phthalate 5 U 208-96-8-----Acenaphthylene 5 U 606-20-2----2,6-Dinitrotoluene U

ER091099-01

Lab Name: CEIMIC CORP Contract: TETR	RA_TECH	
Lab Code: CEIMIC Case No.: CT0086 SAS No.:	SDG No.:	091099
Matrix: (soil/water) <u>WATER</u> Lab S	Sample ID: 990	807-02
Gample wt/vol: 1000 (g/mL) ML Lab F	File ID: <u>DW</u> S	97
ovel: (low/med) LOW Date	Received: 09/	11/99
Moisture: decanted: (Y/N) N Date	Extracted: 09/	15/99
Concentrated Extract Volume: 1000(uL) Date	Analyzed: 09/	23/99
njection Volume: 2.0(uL) Dilut	ion Factor:	1.0
CONCENTRATI CAS NO. COMPOUND (ug/L or ug		Q .
99-09-2	5 5 5	מממממממממממממממממממממממ
53-70-3Benzo(a,h)Anthracene 191-24-2Benzo(g,h,i)Perylene	5 5	U U

FB091099-01

Name: CEIMIC CORE)	Contract: TET	RA_TECH_		
Lab Code: <u>CEIMIC</u> C	Case No.: CTO086	SAS No.:	SDG	No.:	091099
Matrix: (soil/water)	WATER	Lab	Sample ID:	9908	307-01
Sample wt/vol:	1000 (g/mL) ML	Lab	File ID:	<u>DW99</u>	96
Level: (low/med)	LOW	Date	Received:	09/1	1/99
% Moisture:	decanted: (Y/N) N	<u>I</u> Date	Extracted	: 09/1	15/99
Concentrated Extract	Volume:1000(uL) Date	Analyzed:	09/2	23/99
Injection Volume:	<u>2.0</u> (uL)	Dilu	tion Factor	r:	1.0
108-95-2 111-44-4 95-57-8 541-73-1 106-46-7 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 98-95-3 98-95-3 105-67-9 11-91-1 120-83-2 120-83-2 120-82-1 91-20-3 91-20-3 91-58-7-6 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7 91-58-7	COMPOUND Phenolbis(2-Chloroeth2-Chlorophenol1,3-Dichloroben1,4-DichlorobenBenzyl Alcohol1,2-Dichloroben2-Methylphenol2,2'-oxybis(1-C4-MethylphenolN-Nitroso-Di-nHexachloroethanNitrobenzeneIsophorone2-Nitrophenol2,4-DimethylpheBenzoic Acidbis(2-Chloroeth2,4-Dichlorophe1,2,4-Trichloro	ryl)Ether rzene rzene rzene rzene rhloropropane) Propylamine re rnol roxy)Methane rnol rbenzene riene rylphenol rlene ropentadiene rophenol rene rophenol riene rophenol riene rophenol riene	g/Kg) <u>UG/L</u>	555555555555555555555555555555555555555	מתמממממממממממממממממממממממממממממממממממממ

Lab Name: <u>CEIMIC CORP</u> Co	FB091099-01	
Lab Code: <u>CEIMIC</u> Case No.: <u>CTO086</u> S	SAS No.: SDG No.: 091099	
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: 990807-01	_
Sample wt/vol: 1000 (g/mL) ML	Lab File ID: <u>DW996</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>09/11/99</u>	
Moisture: decanted: (Y/N) N	Date Extracted: <u>09/15/99</u>	
Concentrated Extract Volume:1000(uL	Date Analyzed: 09/23/99	
Injection Volume:2.0(uL)	Dilution Factor:1.0	
GPC Cleanup: (Y/N) N pH:		
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
99-09-2	10	

SLCSDH

Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099 Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6 Sample wt/vol: 1000 (g/mL) MLLab File ID: DW976 Level: (low/med) LOW Date Received: % Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99 Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/22/99 Injection Volume: 2.0(uL) Dilution Factor: _____1.0 GPC Cleanup: (Y/N) N pH: ____ CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q 108-95-2----Phenol 18 111-44-4-----bis(2-Chloroethyl)Ether 27 95-57-8----2-Chlorophenol 27 541-73-1----1,3-Dichlorobenzene 25 106-46-7-----1,4-Dichlorobenzene 24 100-51-6-----Benzyl Alcohol 32 95-50-1-----1,2-Dichlorobenzene 25 95-48-7-----2-Methylphenol 27 108-60-1-----2,2'-oxybis(1-Chloropropane) 29 106-44-5-----4-Methylphenol 28 621-64-7----N-Nitroso-Di-n-Propylamine 29 67-72-1-----Hexachloroethane 24 98-95-3-----Nitrobenzene 30 78-59-1-----Isophorone 31 88-75-5-----2-Nitrophenol 32 105-67-9-----2,4-Dimethylphenol 22 65-85-0-----Benzoic Acid 29 111-91-1-----bis(2-Chloroethoxy)Methane 32 120-83-2----2,4-Dichlorophenol_ 31 120-82-1----1,2,4-Trichlorobenzene 27 91-20-3-----Naphthalene 29 106-47-8-----4-Chloroaniline 26 87-68-3------Hexachlorobutadiene 28 59-50-7-----4-Chloro-3-Methylphenol 34 91-57-6----2-Methylnaphthalene 32 77-47-4-----Hexachlorocyclopentadiene 25 88-06-2----2,4,6-Trichlorophenol 35 95-95-4-----2,4,5-Trichlorophenol 34 91-58-7----2-Chloronaphthalene 32 88-74-4----2-Nitroaniline 35 131-11-3-----Dimethyl Phthalate 34 208-96-8-----Acenaphthylene 33 606-20-2----2,6-Dinitrotoluene 37

SLCSDH Lab Name: <u>CEIMIC CORP</u> Contract: <u>TETRA_TECH</u> Lab Code: CEIMIC Case No.: CT0086 SAS No.: SDG No.: 091099 Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6 Sample wt/vol: 1000 (g/mL) MLLab File ID: DW976____ Level: (low/med) LOW Date Received: % Moisture: _____ decanted: (Y/N) N___ Date Extracted: 09/15/99 Concentrated Extract Volume: ____1000(uL) Date Analyzed: 09/22/99 Injection Volume: 2.0(uL)Dilution Factor: _____1.0 GPC Cleanup: (Y/N) N pH: CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u> CAS NO. COMPOUND Q 99-09-2----3-Nitroaniline_____ 34 83-32-9-----Acenaphthene 33 51-28-5----2,4-Dinitrophenol 33 100-02-7----4-Nitrophenol____ 22 132-64-9-----Dibenzofuran 34 121-14-2----2,4-Dinitrotoluene____ 38 84-66-2-----Diethylphthalate 34 7005-72-3----4-Chlorophenyl-phenylether 35 86-73-7-----Fluorene 35 100-01-6-----4-Nitroaniline 35 534-52-1----4,6-Dinitro-2-Methylphenol____ 39 86-30-6----Nitrosodiphenylamine (1) 37 101-55-3-----4-Bromophenyl-phenylether____ 37 118-74-1-----Hexachlorobenzene 38 87-86-5----Pentachlorophenol____ 33 85-01-8-----Phenanthrene 37 120-12-7-----Anthracene 37 86-74-8-----Carbazole 38 84-74-2-----Di-n-Butylphthalate 39 В 206-44-0-----Fluoranthene_____ 39 129-00-0-----Pyrene 36 85-68-7-----Butylbenzylphthalate 36 91-94-1----3,3'-Dichlorobenzidine 30 56-55-3-----Benzo (a) Anthracene 38 218-01-9-----Chrysene 37 117-81-7-----bis(2-Ethylhexyl)Phthalate 37 В 117-84-0-----Di-n-Octyl Phthalate 38 205-99-2----Benzo (b) Fluoranthene 36 207-08-9-----Benzo(k)Fluoranthene 40

50-32-8-----Benzo (a) Pyrene

193-39-5-----Indeno(1,2,3-cd)Pyrene

191-24-2----Benzo (g, h, i) Perylene

53-70-3-----Dibenzo(a,h)Anthracene

37

34

34

33

SBLKDH

SBLKDH

Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received:

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

 $\frac{2.0}{400}$

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q

GPC Cleanup: (Y/N) N pH: ____

208-96-8-----Acenaphthylene

606-20-2-----2,6-Dinitrotoluene

108-95-2----Phenol U 111-44-4-----bis(2-Chloroethyl)Ether 5 U 95-57-8-----2-Chlorophenol 5 U 5 541-73-1----1,3-Dichlorobenzene U 106-46-7----1,4-Dichlorobenzene U 100-51-6-----Benzyl Alcohol U 95-50-1----1,2-Dichlorobenzene 5 U 95-48-7----2-Methylphenol 5 U 108-60-1----2,2'-oxybis(1-Chloropropane) 5 U 106-44-5----4-Methylphenol 5 U 5 621-64-7----N-Nitroso-Di-n-Propylamine U 67-72-1-----Hexachloroethane 5 U 98-95-3-----Nitrobenzene 5 U 78-59-1-----Isophorone 5 U 88-75-5----2-Nitrophenol 5 U 5 105-67-9-----2,4-Dimethylphenol U 5 U 65-85-0-----Benzoic Acid 5 111-91-1-----bis (2-Chloroethoxy) Methane U 5 U 120-83-2----2,4-Dichlorophenol 120-82-1-----1,2,4-Trichlorobenzene 5 U 5 91-20-3-----Naphthalene U 5 106-47-8-----4-Chloroaniline U 5 87-68-3-----Hexachlorobutadiene U 59-50-7-----4-Chloro-3-Methylphenol 5 U 91-57=6----2-Methylnaphthalene 5 U 77-47-4-----Hexachlorocyclopentadiene 5 U 88-06-2----2,4,6-Trichlorophenol 5 U 95-95-4----2,4,5-Trichlorophenol 10 U 91-58-7-----2-Chloronaphthalene 5 U 88-74-4----2-Nitroaniline 10 U 131-11-3-----Dimethyl Phthalate 5 U

5

U

U

Lab Name: <u>CEIMIC COR</u>	LP	Contract: <u>TETR</u>	A TECH	SBL	KDH	
Lab Code: CEIMIC			,	No.:	091099	
Matrix: (soil/water)	WATER	Lab S	ample ID:	<u>5091</u>	5- B6	
Sample wt/vol:	1000 (g/mL) ML	_ Lab F.	ile ID:	D W 97	5	
Level: (low/med)	LOW	Date 1	Received:			
Moisture:	decanted: (Y/N)	<u>N</u> Date I	Extracted:	09/1	5/99	
Concentrated Extract	Volume:1000	(uL) Date	Analyzed:	09/2	2/99	
njection Volume:	2.0(uL)	Dilut	ion Factor	•	1.0	
CAS NO.	N pH:	CONCENTRATION (ug/L or ug/			Q	
83-32-9 51-28-5 100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 118-74-1 87-86-5 85-01-8 120-12-7 86-74-8 206-44-0 129-00-0 85-68-7 91-94-1 218-01-9 117-81-7 205-99-2	4-Nitroaniline4,6-Dinitro-2-NN-Nitrosodipher4-Bromophenyl-pHexachlorobenzePentachloropherPhenanthreneCarbazoleDi-n-ButylphthaFluoranthenePyreneButylbenzylphtha3,3'-Dichlorobe	mol		5 10 10 5 5 5 5 10 10 5 5 5 5 5 5 5 5 5	מממלממממממממממממממממממממממממממממ	
193-39-5	Benzo(a)Pyrene Indeno(1,2,3-co Dibenzo(a,h)Ant Benzo(g,h,i)Pen	d)Pyrene thracene	-	5 5 5 5	ם ם ם	

2C WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

	EPA	S1	S2	S3	S4	S5	S6	S7	S8	TOT
	SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#	(2CP)#	(DCB)#	OUT
	========	=====	=====	=====	=====	=====	=====	=====	======	===
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

			QC LIMITS	
S1	(NBZ)	= Nitrobenzene-d5	(35-114)	
S2	(FBP)	= 2-Fluorobiphenyl	(43-116)	
S3	(TPH)	= Terphenyl-d14	(33-141)	
S4	(PHL)	= Phenol-d5	(10-100)	
S5	(2FP)	= 2-Fluorophenol	(21-125)	
S6	(TBP)	= 2,4,6-Tribromophenol	(25-134)	
S7	(2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8	(DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

[#] Column to be used to flag recovery values
* Values outside of contract required QC limits

D Surrogate diluted out

10/06/99 15:58

Laboratory Control Spike Summary

page 1

LAB SAMP ID LAB QC ID	S0915-LCS6	SAMPLE ID TYPE	SLCSDH EPA	DATA	RELEASE A	AUTHORIZED	ВУ
FILE NAME TUNE STANDARD BLANK TAPE/POS	DW976 DW967 DW968 DW975	RECEIVED EXTRACTED ANALYZED VERIFIEÓ	09/15/99 09/22/99 20:	05	METHO FRACTIOI INS ANALYS BOTTL	N BNA T MS4 T	-
% MOISTURE (DECANTED) DIL FACTOR SAMPLE: CONDITIONS:	1.000	pH CLEANUP EXTRACT METHOD	CLL		MATRI	L <u>LOW</u> X <u>WATER</u> S <u>ug/L</u>	

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY * FLGS
C315	108-95-2	Phenol	50.00	18.36	36.72
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12
- C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.5 9	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-6 7-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20-3-	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38
4000			20.00	J ± J	30.30

Laboratory Control Spike Summary

•			CONC	RECOVER	łΥ
CODE	CAS NO	COMPOUND	SPIKED	CONC % FLG	
C540	208-96-8	Acenaphthylene	50.00	32.78 65.56	
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77 73.54	
C545	99-09-2	3-Nitroaniline	50.00	34.16 68.32	
C550	83-32-9	Acenaphthene	50.00	33.32 66.64	
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69 65.38	
C560	100-02-7	4-Nitrophenol	50.00	22.39 44.78	
C565	132-64-9	Dibenzofuran	50.00	34.42 68.84	
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31 76.62	
C580	84-66-2	Diethylphthalate	50.00	34.16 68.32	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63 69.26	
C590	86-73-7	Fluorene	50.00	34.85 69.70	
C595	100-01-6	4-Nitroaniline	50.00	34.62 69.24	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99 77.98	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69 73.38	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63 73.26	
C630	118-74-1	Hexachlorobenzene	50.00	37.54 75.08	
C635	87-86-5	Pentachlorophenol	50.00	32.96 65.92	
C640	85-01-8	Phenanthrene	50.00	36.90 73.80	
C645	120-12-7	Anthracene	50.00	36.51 73.02	
C646	86-74-8	Carbazole	50.00	37.84 75.68	
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56 77.12	
5.5	206-44-0	Fluoranthene	50.00	38.99 77.98	
1 5	129-00-0	Pyrene	50.00	36.00 72.00	
C720	85-68-7	Butylbenzylphthalate	50.00	35.96 71.92	
~ C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56 59.12	
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52 75.04	
C740	218-01-9	Chrysene	50.00	37.05 74.10	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58 73.16	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23 76.46	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63 71.26	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94 79.88	
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68 73.36	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85 67.70	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15 68.30	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41 66.82	

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH_

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Lab File ID: <u>DW975</u>

Lab Sample ID: S0915-B6

Instrument ID: MS4

Date Extracted: 09/15/99

Matrix: (soil/water) WATER

Date Analyzed: 09/22/99

Level: (low/med) <u>LOW</u>

Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	DATE
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
	=========			
01	ER091099-01	990807-02	DW997	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

La Code: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	========	======	=======		========	======
	12 HOUR STD	548821	4.65	1854821	5.83	1063350	8.54
	UPPER LIMIT	1097642	5.15	3709642	6.33	2126700	9.04
	LOWER LIMIT	274410	4.15	927410	5.33	531675	8.04
	========		======	=======	======	=======	======
	EPA SAMPLE						l
	NO.						
	==========		======		======		
01	SLCSDH	468717	4.63	1669235	5.80	972577	8.53
02	SBLKDH	688381	4.64	2304712	5.81	1202037	8.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

TS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: ____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS4 (PHN)		IS5(CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		========	======		======		
	12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
	UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
	LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
			======	========	======		======
	EPA SAMPLE						
	NO.						
	==========		======	========	======	========	======
01	SLCSDH	1667254	10.36	1398697	13.14	1318354	15.33
02	SBLKDH	1970726	10.36	1312192	13.13	1325168	15.33
							[

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT. RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

8B SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lah Name: CEIMIC CORP Contract: TETRA TECH

Law Code: CEIMIC Case No.: CT0086 SAS No.: ____ SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS1 (DCB)		IS2(NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	=========	=======	======	========	======	=========	======
	12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
	UPPER LIMIT	878390	5.12	2800152	6.28	1605618	8.99
i	LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
	=========	========	======	========	======	=======================================	======
	EPA SAMPLE						
	NO.						
	=========	========	======	========	======	=======================================	======
01	ER091099-01	697849	4.62	2415481	5.79	1331022	8.49
02	FB091099-01	964450 *	4.62	3435530 *	5.79	1932269 *	8.49
ł					_		

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

S3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

[#] Column used to flag internal standard area values with an asterisk.

^{*} Values outside of QC limits.

8C SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

1		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		=======		========	======		-=====
į	12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
1	UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
-	LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
	_==========	========		========	======		======
	EPA SAMPLE						
	NO.						
				========	======		======
1	ER091099-01	2180804	10.32	1422919	13.08	1395791	15.24
2	FB091099-01	3276900 *	10.32	2598391 *	13.08	2742870 *	15.24

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

PESTICIDE ANALYSES

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 10/04/99 Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
alpha-BHC	. ND	0.050	
beta-BHC	ND	0.050	
delta-BHC	ND	0.050	
gamma-BHC	ND	0.050	
Heptachlor	ND	0.050	
Aldrin	ND	0.050	
Heptachlor Epoxide	ND	0.050	
Endosulfan I	ND	0.050	
Dieldrin	ND ~	0.10	
4,4'-DDE	ND	0.10	
Endrin	ND	0.10	
Endosulfan II	ND	0.10	
4,4'-DDD	ŅD	0.10	
Endosulfan Sulfate	ND	0.10	
4,4'-DDT	ND	0.10	
Methoxychlor	ND	0.50	
Endrin Ketone	. ND	0.10	
Endrin Aldehyde	ND	0.10	
alpha-Chlordane	ND	0.050	
gamma-Chlordanc	ND	0.050	
Toxaphene	ND	5.0	
Aroclor-1016	ND	0.1	
Aroclor-1221	ND	2.0	
Aroclor-1232	ND	1.0	
Aroclor-1242	ND	1.0	
Aroclor-1248	ND	1.0	
Aroclor-1254	· ND	1.0	
Aroclor-1260	ND	1.0	

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	. 80	56 - 111
Decachlorobiph eny l =	55	34 - 129

* These limits are provided for advisory purposes.

Reported by: ______ Approved by: _______

:F:

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit 0.050	
alpha-BHC	ND		
beta-BHC	ND	0.050	
delta-BHC	ND	0.050	
gamma-BHC	ND	0.050	
Heptachlor	ND	0.050	
Aldrin	· ND	0.050	
Heptachlor Epoxide	ND	0.050	
Endosulfan I	ND	0.050	
Dieldrin	ND ·	0.10	
4,4'-DDE	ND	0.10	
Endrin	ND	0.10	
Endosulfan II	ND	0.10	
1.4'-DDD	ND	0.10	
sulfan Sulfate	ND	0.10	
TOG.	ND	0.10	
Methoxychlor	ND	0.50	
Endrin Ketone	ND	0.10	
Indrin Aldehyde	ND	0.10	
lpha-Chlordane	ND	0.050	
amma-Chlordane	ND	0.050	
Foxaphene	ND	5.0	
Aroclor-1016	ND	1.0	
Aroclor-1221	ND	2.0	
Aroclor-1232	ND	1.0	
Aroclor-1242	ИD	1.0	
Aroclor-1248	ND	1.0	
Arocior-1254	ND	1.0	
Aroclor-1260	ИD	1,0	

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
DecachlorobiphenyT	60	34 - 129

^{*} These limits are provided for advisory purposes.

	10	•	N
Reported by:		Approved by:	NC

METHOD BLANK ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS

Blank ID: P0915-B1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldchyde	· ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	· ND	1.0

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	. 85	56 - 111
Decachlorobiphenyl	. 75	34 - 129

^{*} These limits are provided for advisory purposes.

	15-		N	
Reported by:		Approved by:	<u> </u>	

LABORATORY CONTROL SUMMARY ORGANOCHLORINE PESTICIDES by SW846 Method 8080

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed:

09/29/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Resull	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	* 0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan 11	0.50	0.35	70	69 - 137
4. DD	0.50	0.43	86	49 - 141
Ei Ilfan Sulfate	0.50	0.44	88	51 - 144
4,4°-DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by: ______ Approved by: ______

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

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	00915 21				0091				*************	•			ipike ID:							
IDENTI	FICATION			EXT	RACTIO	N SEC	TION						T CLEA	N-UP S				Matrix: 99000000 INIT & DATE TRANSFER COMMENT:		
Client ID	Ceimic 1D	Vol/ W((ml/g)	Surr Vol (µl)	MS Vol (Ių)	% Moist	рН	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Cican Up Vol*	Post Clcan Vol*	Florisil Vot•	Post Florisil Vol*	Vol Trans.*	GC/ MS	GC/ LC	
FBC 11099 - 0 ERO 71099-3	10 F0805 60	100m 1	inl						10 m l			gr-	, [4]	7			Imp	Ī	cobi <i>H</i>	
												n								
4.											<i>J;</i>	(F)	115/	7 9						
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Final Solvent	D: <u>NO JO</u>		Sodiui Super Surros	m Sulfa visor In	ite Lot # nit: lded By:	TAC AM			Reagen		l volum	es are in	- <u>-</u>		l nicss oth X Y		l noted.		ment Co	·
Prepared by:	- Jim		Witne	ssed By	ı: - 3.	¥ ./		_						Florisil	Lot #:			۸L	2nd Ali	quot

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PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

ND = Not detected

Laboratory ID: 990807-01

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Farget Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	· ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachioro-m-xylene	105	56 - 111
Decachlorobiphenyl	75	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:
reported o).	

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
or-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	· ND	1.0
Aroclor-1248	ND	0.1
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	65	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	r

METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB)

by SW846 Method 8080A

C	irmi.	Tetra	Tech	NI	15
•	c.i.	1	1 0011	,,,	, ,

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Farget Analyte	Sample Concentration	Quantitation Limit		
Aroclor-1016	ND	1.0		
Aroclor-1221	ND	2.0		
Aroclor-1232	ND	1.0		
Aroclor-1242	· ND	1.0		
Aroclor-1248	ND	1.0		
Aroclor-1254	ND	1.0		
Aroclor-1260	ND	1.0		

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

^{*} These limits are provided for advisory purposes.

Leported by:	Approved by:

LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

C	ient:	l etra	lech	NUS
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Blank Spike ID: P0915-LCS4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09.1

09.27799

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike A d ded	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroctor-1016	5.0	5.2	104	30 - 150
Aroctor-1260	5.0	5.3	106	47 - 127

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by: Approved by:	Reported by:	Approved by:	L
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CEIMIC CORPORATION

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 99089 | Analytical Method: 8081 A Surr. Sol. ID: Pw990830B Prep Date/Time: 0911459

Client: 4tha Tecknus Extraction Method: Sp. June									MS Sol. ID: <u> </u>							Analysis: Pert				
Blank ID: _P	00915 BI		LCS I	D: _}	0091	s Lc	5,			Addt'l Spike ID:							usus			
										EXTRACT CLEAN-UP SECTION							INIT & DATE			
IDENTI	FICATION	EXTRACTION SECTION							GC/MS GC/LC					TRAN	SFER	COMMENTS				
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														-			<u> </u>	<u></u>		

Nm5= 9909029

Project#: 490807

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#:	490807	l.	Analy	tical M	cthod:	809	820					Surr. Sc	ol. ID: _	pw 9°	109 m	B		Prep Da	te/Time:	091 15	199
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											EXTRACT CLEAN-UP SECTION							7	DATE		
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B	··		Witne	ssed Br	 .,	1/4	·\	_	Silica							RE = Reextract AL 2nd Aliquot					
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METAL ANALYSES

TOTAL METALS AND CYANIDE - Cover Page INORGANIC ANALYSIS DATA PACKAGE

Со	ct: Outla	INORGANIC sying Landing Field Bron					No.: 091	099
Lab	Code: CEIMIC	Case No).: <u>9</u>	90807		SAS 1		
SOW	No.: ILM04.0							
		Sample No.		Lal	o Sample II) <u>.</u>		
		FB091099-01	_	99	0807-01	<u>.</u>		
		ER091099-01	_	99	0807-02			
		•						
We	ICP interel	ement corrections appli	ed?			Yes	/No YES	
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were	_	und corrections applied raw data generated bef				Yes	/No YES	
	_	of background correcti				Yes	/No NO	
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ig	ıre:	Varile Vortouth	_	Name:		WALD TORTAS	REW	<u> </u>
		10/1/97	_			wic LAB M		
ate:		10/1/97		Title:	INORGH	WIC LAB ME	; 54.	

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.:

091099

.trix (soil/water):WATER

Lab Sample ID: 990807-01

:vel (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	41.0	U	1	P
7440-36-0	Antimony	2.6	U	1	P
7440-38-2	Arsenic	3.6	U	1	P
7440-39-3	Barium	12.9	В	l	P
7440-41-7	Beryllium	0.64	В	I	P
7440-43-9	Cadmium	0.43	U	1	P
7440-70-2	Calcium	333	В	l	P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U	1	P
7440-50-8	Copper	3.8	ט	1	P
	Cyanide	5.0	U	l	C
7439-89-6	Iron	40.0	ט		P
7439-92-1	Lead	2.7	Ü		P
7439-95-4	Magnesium	119	ט	l	P
7439-96-5	Manganese	3.0	U	1	P
7439-97-6	Mercury	0.18	U	l	AV
7440-02-0	Nickel	6.3	U	I	P
7440-09-7	Potassium	246	В	1	P
7782-49-2	Selenium	2.3	В	1	P
7440-22-4	Silver	3.7	U	l	P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	4.4	U	1	P
7440-62-2	Vanadium	3.8	В	1	P
7440-66-6	Zinc	14.0	В		P

Color Before: COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990807

SAS No.:

SDG NO.:

091099

Matrix (soil/water): WATER

Lab Sample ID: 990807-02

Level (low/med): LOW

Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	U		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	В		P
7440-47-3	Chromium	5.4	ן ט		P
7440-48-4	Cobalt	5,2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	ע		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U	l	P
7440-09-7	Potassium	222	U		P
7782-49-2	Selenium	2.1	U	1	P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	293	В	1	P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U	1	P
7440-66-6	Zinc	18.5	B	1	P

Color Before:

COLORLESS

Clarity Before:

CLEAR

Texture:

Color After:

COLORLESS

Clarity After:

CLEAR

Artifacts:

TOTAL METALS AND CYANIDE - 3 BLANKS

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990807 SA

SAS No.:

SDG NO.: 091099

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	С	1	C	ontinuing C Blank (u 2			С	Preparation Blank	м
Aluminum			41.0	ט	41.0	اتا	42.3	В	141.000 B	P
Barium			16.4	В	12.4	В	17.4	В	9.910 B	P
Beryllium			0.4	U	-0.4	В	0.4	U	0.430 B	P
Calcium			-127.3	В	170.1	В	-254.8	В	495.000 B	P
Chromium			-10.9	В	-11.8	В	-9.9	В	5.710 B	P
Cobalt			7.1	В	5.7	В	8.5	В	15.600 B	P
Copper			-4.7	В	-6.6	В	-4.7	В	13.000 B	P
Iron			40.0	U	40.0	וטן	40.0	U	40.000 U	P
Magnesium		1	119.0	U	133.7	В	119.0	U	551.000 B	P
Manganese			3.0	U	3.0	וטן	3.0	U	3.000 U	P
Nickel			-24.4	В	-31.9	В	-23.9	В	-11.960 B	P
Potassium			222.0	ט	314.8	В	286.8	В	620.000 B	P
Sodium			57.0	U	133.2	В	57.0	U	570.000 B	P
Vanadium			5.3	В	2.8	ט	2.8	U	18.500 B	P
Zinc			5.5	ט	5.5	U	5.5	U	16.800 B	P

TOTAL METALS AND CYANIDE - 3 BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.:990807 SAS No.

Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			С	ontinuing C Blank (u				Preparation Blank			
Analyte	(ug/L)	С	1	С	2	С	3	С		С		М
Antimony	2.6	ט	2.6	ט	2.6	ט	2.6	U	2.600	บ	1	P
Arsenic] 3.6	ŭ	3.6	็บ	3.6	ט	3.6	U	3.600	็บ		P
Cadmium	0.4	U	0.4	ַט	0.4	ט	0.4	ט	0.430	ט	$\overline{\mathbb{H}}$	P
Lead	2.7	ט	2.7	U	2.7	ַ ט	2.7	ַ	2.700	ט	Ū	P
Mercury	1		0.14	U	0.14	บ	0.14	υ	0.140	ับ	$\overline{\coprod}$	ΑV
Selenium	3.3	В	2.1	U	2.1	ט	2.8	В	2.100	U		P
Silver	3.7	ט	3.7	ט	3.7	U	3.7	ט	3.700	Ü		P
Thallium	4.4	U	4.4	Ü	4.4	U	4.4	U	4.400	ַ ט	Ī	P

-3-BLANKS

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case

Case No.:990807

SAS No.:

SDG NO.: 091099

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank				tinuing Blank		ation		Preparation Blank	1	
Analyte	(ug/L)	c	1	С	2	С	3	c		С	М
Cyanide	10.	0 0	10.0	[ט] כ	10.0	ןט כ			5.000	ט (C

-7-

LABORATORY CONTROL SAMPLE

SDG NO.: 091099

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.:

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

	Aqu	eous (ug/	L)	Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	С	Limits	8R
Aluminum	10000.0	9660.60	96.6		1	1		
Barium	10000.0	8989.20	89.9			11		
Beryllium	250.0	241.13	96.5					
Calcium	25000.0	24334.00	97.3					
Chromium	1000.0	923.29	92.3					
Cobalt	2500.0	2266.90	90.7		ļ	II		
Copper	1250.0	1104.50	88.4			11		
Iron	5000.0	4833.20	96.7					
Magnesium	25000.0	24312.00	97.2					
Manganese	2500.0	2280.20	91.2			T		1
א 'el	2500.0	2234.90	89.4		1			
i ssium	25000.0	22620.00	90.5			11		
Sodium	25000.0	24776.00	99.1			11		
Vanadium	2500.0	2377.40	95.1					
Zinc	2500.0	2240.30	89.6]			
Sanda	30.0	77,59	47.5					1

-7-

LABORATORY CONTROL SAMPLE

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.:990807

SAS No.:

SDG NO.: 091099

olid LCS Source:

queous LCS Source: INOR-VNT-ICV

	Aqueous (ug/L)				Solid (mg/kg)					
Analyte	True	Found	%R	True	Found	С	Limits	8R		
Antimony	500.0	453.52	90.7			11				
Arsenic	200.0	181.71	90.9		I	11		1		
Cadmium	100.0	85.84	85.8		1	11				
Lead	200.0	175.02	B7.5			11				
Selenium	200.0	185.06	92.5			TI		1		
Silver	1250.0	1138.50	91.1			11		Ī		
Thallium	200.0	175.64	87.8			T		1		

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

November 2, 1999

Ms. Lee Leck Tetra Tech NUS Foster Plaza VII 661 Andersen Dr. Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, CTO# 86, Project No. 770413, SDG No. 02SU02. The 2 soil samples were taken from the field on October 12, 1999 and received at Ceimic Corporation on October 13, 1999.

These samples are reported under Ceimic Project Number 990890, which can be referenced when inquiring about this project.

For the semivolatiles fraction, sample 102SU02 was double spiked with internal standards.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D. Laboratory Manager

NP/dji

Enclosures

CC: Mr. Terry Hansen
Tetra Tech NUS
1311 Executive Center Dr.
Ellis Bldg.
Suite 220

Tallahassee, FL 32301

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	Page #
Volatiles	
Semivolatiles	jЦ
Pesticides	94
PCB	42
Metals	Ϋ́

CHAIN OF CUSTODY

770870 -CHAIN OF CUSTODY RECORD SAMPLING FIRM CLIENT CONTACT PHONE NUMBER Tot Tech SOBTHWEST LABORATORY OF OKLAHOMA, INC. P.O. or PROPOSAL NUMBER PROJECT NAME 1700 W-Albury s-Rapkin Assow, Ohlahous 24012:1421 M/4 < 13 ANALYTICAL TESTS REQUESTED > SAMPLER: (Signature) NUMBER OF SAMPLE ND. DATE COMP. GRAB TIME LOCATION XIRTAM CONTAINERS REMARKS 10/11/99 1025402 1305 BX0-102-25 94-01 Tuy, Black 0700 5 RECEIVED BY: (Signature) RELINQUISHED BY: (Signature) DATE RECEIVED BY: (Signature) 814774096782 RECEIVED FOR LABORATORY BY: (Signature) RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DATE om fren Williamas 10/13/99 RECEIVED BY: (Signature) REMARKS: RELINOUISHED BY: (Signature) DATE TIME

[S" \\1192-03]

VOLATILE ANALYSES

03

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit		
Chloromethane	ND	5		
Bromomethane	ND	5		
Vinyl Chloride	ND	5		
Chloroethane	ND	5		
Methylene Chloride	ND	5		
Accione	ND	10		
Carbon Disulfide	ND	5		
1,1-Dichloroethene	ND	5		
1,1-Dichloroethane	ND	5		
1,2-Dichloroethene (total)	ND	5		
Chloroform	ND	5		
1,2-Dichloroethane	ND	5		
2-Вигалопе	ND	10		
1,1,1-Trichloroethane	ND	5		
Carbon Tetrachloride	ND	5		
Bromodichloromethane	ND	5		
1,2-Dichloropropane	ND	5		
trans-1,3-Dichloropropene	ND	5		
Trichloroethene	ND	5		
Dibromochloromethane	ND	5		
1,1,2-Trichloroethane	ND	5		
Benzene	ND	5		
cis-1,3-Dichloropropene	ND	5		
Bromoform	ND	5		
2-Нехалопе	ND	10		
4-Methyl-2-Pentanone	ND	10		
Tetrachloroethene	ND	5		

Reported by:	7	Approved by:	04
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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
1,1,2,2-Tetrachloroethane	ND	5	
Toluene	ND	5	
Chlorobenzene	ND	5	
Ethylbenzene	ND	5	
:ne	ND	5	
icial Xylenes	ND	5	

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)		
1,2-Dichloroethane-d4	83	52 - 149		
Dibromofluoromethane	102	65 - 135		
Toluene-d8	104	65 - 135		
Bromofluorobenzene	101	65 - 135		

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Reported by:	Approved by:	4/	<u> </u>	_05

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V151013-B1

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	, ND	5
1,2-Dichloroethane	ND	. 5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V151013-B1

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Foluene	ND	5
Chlorobenzene	ND	5
Ibenzene	ND	5
	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	107	62 - 139
Dibromofluoromethane	116	75 - 125
Toluene-d8	104	75 - 125
Bromofluorobenzene	122	75 - 125

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Reported by:	Approved by: $\underline{\mathcal{U}}/\underline{\mathcal{U}}$	(01

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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- 1	ICD	-	`etra	100	27	N.	
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Client Sample ID: 102SU02

Laboratory ID: 990890-01

Date Sampled: 10/12/99

Date Sample Analyzed: 10/13/99

Date Sample Received: 10/13/99

Associated Method Blank: V121013-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 96

Concentration in: ug/Kg (ppb)

Target Analyte Sample Concentration		Quantitation Limit
Chloromethane	ND	. 5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	9	5
Accione	11	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11
Tetrachloroethene	ND	5

Reported by:	Approved by: $\widehat{\mathcal{Q}}$	/ (08

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Laboratory ID: 990890-01

Date Sampled: 10/12/99

Date Sample Analyzed: 10/13/99

Date Sample Received: 10/13/99

Associated Method Blank: V121013-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 96

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethanc	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Thylbenzene	ND	5
rene	ND	5
Total Xylenes	ND	5

ND = Not detected + Dry weight basis.

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	105	52 - 149
Dibromofluoromethane	104	65 - 135
Toluene-d8	103	65 - 135
Bromofluorobenzene	103	65 - 135

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Reported by:	Approved by:	u/	
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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

	Client:	Tetra	Tech	NUS
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Client Sample ID: TB1012

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Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Aqueous

Laboratory ID: 990890-02

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND ·	5
Chloroethanc	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND .	. 5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	. 5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

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Reported by:	 Approved by: _	4/ \	
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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB1012

Laboratory ID: 990890-02

Date Sampled: 10/12/99

Date Sample Analyzed: 10/13/99

Date Sample Received: 10/13/99

Associated Method Blank: V151013-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
1,1,2,2-Tetrachloroethane	ND	5	
Toluene	ND	5	
Chlorobenzene	ND	5	
benzene	ND	5	
Styrene	ND	5	
Total Xylenes	ND	5	

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	104	62 - 139	
Dibromofluoromethane	109	75 - 125	
Toluene-d8	102	75 - 125	
Bromofluorobenzene	114	75 - 125	

Reported by: Approved by: 11

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: V121013-LCS

Date Sample Analyzed: 10/13/99

Matrix: Soil

Associated Method Blank: V121013-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	53	106	60 - 128
Trichloroethene	50	55	109	57 - 145
Benzene	50	55	110	72 - 124
Toluene	50	56	112	71 - 135
Chlorobenzene	50	56	112	72 - 135

^{*} These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	99	52 - 149	
Dibromofluoromethane	106	65 - 135	
Toluene-d8	106	65 - 135	
Bromofluorobenzene	103	65 - 135	

Reported by: \mathcal{A} Approved by: \mathcal{A}

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: V151013-LCS

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Associated Method Blank: V151013-B1

Concentration: $\mu g/L$ (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	52	104	68 - 124
Trichloroethene	50	51	103	75 - 120
Benzene	50	52	103	78 - 127
Toluene	50	52	105	71 - 132
Chiorobenzene	50	52	103	77 - 128

^{*} These limits are provided for advisory purposes.

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	103	62 - 139	
Dibromofluoromethane	105	75 - 125	
Toluene-d8	106	75 - 125	
Bromofluorobenzene	99	75 - 125	

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Reported by:	Approved by:	91	13

SEMIVOLATILE ORGANIC ANALYSES

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102SU02

me: CEIMIC CORP Contract: TETRA TECH ₃ak ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 fatrix: (soil/water) SOIL Lab Sample ID: 990890-01 Sample wt/vol: 30.1 (g/mL) GLab File ID: JY983 level: (low/med) LOW Date Received: <u>10/13/99</u> Moisture: <u>4</u> decanted: (Y/N) N_ Date Extracted: 10/15/99 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99 njection Volume: _____2.0(uL) Dilution Factor: 2.0 PC Cleanup: (Y/N) Y pH: 112/99 CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 108-95-2----Phenol 170 U 111-44-4-----bis(2-Chloroethyl)Ether 170 U 95-57-8----2-Chlorophenol U 170 541-73-1----1,3-Dichlorobenzene U 170 106-46-7-----1,4-Dichlorobenzene U 170 95-50-1----1,2-Dichlorobenzene 170 U 95-48-7----2-Methylphenol U 170 108-60-1----2,2!-oxybis(1-Chloropropane) 170 U 106-44-5----4-Methylphenol U 170 621-64-7----N-Nitroso-Di-n-Propylamine U 170 67-72-1-----Hexachloroethane U 170 98-95-3-----Nitrobenzene_____ U 170 78-59-1-----Isophorone 170 U 88-75-5----2-Nitrophenol U 170 105-67-9----2,4-Dimethylphenol 170 U 111-91-1-----bis(2-Chloroethoxy)Methane U 170 120-83-2----2,4-Dichlorophenol U 170 120-82-1----1,2,4-Trichlorobenzene 170 U 91-20-3-----Naphthalene 170 U 106-47-8-----4-Chloroaniline U 170 87-68-3-----Hexachlorobutadiene U 170 59-50-7----4-Chloro-3-Methylphenol 170 U 91-57-6----2-Methylnaphthalene 170 U 77-47-4-----Hexachlorocyclopentadiene 170 U 88-06-2----2,4,6-Trichlorophenol 170 U 95-95-4----2,4,5-Trichlorophenol U 340 91-58-7----2-Chloronaphthalene 170 U 88-74-4----2-Nitroaniline 340 U 131-11-3-----Dimethyl Phthalate 170 U 208-96-8-----Acenaphthylene U 170 606-20-2----2,6-Dinitrotoluene U 170 99-09-2----3-Nitroaniline_____ 340 U

U

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83-32-9-----Acenaphthene

10251102

b Name: CEIMIC CORP Contrac	ct: TETRA_TECH	25002
b Code: CEIMIC Case No.: 770413 SAS No.	SDG No.:	<u>02SU02</u>
trix: (soil/water) <u>SOIL</u>	Lab Sample ID: 990	890-01
imple wt/vol: $30.1 (g/mL) G$	Lab File ID: <u>JY</u> 9	83
evel: (low/med) <u>LOW</u>	Date Received: <u>10/</u>	13/99
Moisture: 4 decanted: (Y/N) N	Date Extracted: 10/	15/99
oncentrated Extract Volume: 500.0 (uL)	Date Analyzed: 10/	29/99
jection Volume: 2.0(uL)	Dilution Factor:	2.0 1.0
PC Cleanup: (Y/N) Y pH:	ONCENTRATION UNITS:	11/2/9
	ug/L or ug/Kg) <u>UG/KG</u>	Q
51-28-52,4-Dinitrophenol	340	U
100-02-74-Nitrophenol	340	ט
132-64-9Dibenzofuran	170	U
121-14-22,4-Dinitrotoluene	170	ט
84-66-2Diethylphthalate	170	U
7005-72-34-Chlorophenyl-phenyle		ט
86-73-7Fluorene	170	ט
100-01-64-Nitroaniline	340	U
534-52-14,6-Dinitro-2-Methylph	nenol340	U
86-30-6Nitrosodiphenylamine	170	ט
101-55-34-Bromophenyl-phenylet	her 170	U
118-74-1Hexachlorobenzene	170	Ü
87-86-5Pentachlorophenol 85-01-8Phenanthrene	340	U
120-12-7Anthracene	170 170	U
86-74-8Carbazole	170	ט
84-74-2Di-n-Butylphthalate	170	Ü
206-44-0Fluoranthene	170	Ū
129-00-0Pyrene	170	ט
85-68-7Butylbenzylphthalate	170	ט
91-94-13,3'-Dichlorobenzidine		ט
56-55-3Benzo(a) Anthracene	170	U
218-01-9Chrysene	170	U
117-81-7bis(2-Ethylhexyl)Phth	alate 170	U
117-84-0Di-n-Octyl Phthalate	170	U
205-99-2Benzo(b) Fluoranthene	170	U
207-08-9Benzo(k)Fluoranthene	170	U
50-32-8Benzo (a) Pyrene	170	U
193-39-5Indeno(1,2,3-cd)Pyren	≘170	U
53-70-3Dibenzo(a,h)Anthracen	e 170	U
191-24-2Benzo(g,h,i)Perylene_		U
(1) Connet he are a first Division		16
(1) - Cannot be separated from Diphenyl	amine	

18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SLCSJS

at ame: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 latrix: (soil/water) <u>SOIL</u> Lab Sample ID: <u>S1015-LCS2</u> tample wt/vol: 30.0 (g/mL) G Lab File ID: JY980

level: (low/med) LOW Date Received:

Moisture: ____ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

njection Volume: 2.0(uL) Dilution Factor: ____1.0

PC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q

108-95-2Phenol	1200	
111-44-4bis(2-Chloroethyl)Ether	1000	
95-57-82-Chlorophenol	1100	1
541-73-11,3-Dichlorobenzene	990	
106-46-71,4-Dichlorobenzene	950	
95-50-11,2-Dichlorobenzene	980	
95-48-72-Methylphenol	1200	
108-60-12,2'-oxybis(1-Chloropropane)	1100	
106-44-54-Methylphenol	1200	
621-64-7N-Nitroso-Di-n-Propylamine	1100	
67-72-1Hexachloroethane	940	
98-95-3Nitrobenzene	1100	
78-59-1Isophorone	1100	
88-75-52-Nitrophenol	1100	
105-67-92,4-Dimethylphenol	990	į
111-91-1bis(2-Chloroethoxy)Methane	1100	
120-83-22,4-Dichlorophenol	1200	
120-82-11,2,4-Trichlorobenzene	1000	
91-20-3Naphthalene	1100	
106-47-84-Chloroaniline	670	
87-68-3Hexachlorobutadiene	1000	
59-50-74-Chloro-3-Methylphenol	1300	
91-57-62-Methylnaphthalene	1100	
77-47-4Hexachlorocyclopentadiene	1000	
88-06-22,4,6-Trichlorophenol	1300	
95-95-42,4,5-Trichlorophenol	1300	
91-58-72-Chloronaphthalene	1200	
88-74-42-Nitroaniline	1300	
131-11-3Dimethyl Phthalate	1300	
208-96-8Acenaphthylene	1200	
606-20-22,6-Dinitrotoluene	1300	
99-09-23-Nitroaniline	1100	
83-32-9Acenaphthene	1200	
	1 [

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SLCSJS

ab Name: <u>CEIMIC CORP</u>	Cont	ract: <u>TETRA_TECH</u>		
ab Code: CEIMIC Ca	ase No.: <u>770413</u> SAS	No.:SDO	G No.: <u>02SU</u>	02
atrix: (soil/water) §	SOIL	Lab Sample ID	: <u>S1015-LC</u>	S2
ample wt/vol:	30.0 (g/mL) <u>G</u>	Lab File ID:	JY980	
evel: (low/med)]	LOW	Date Received	•	
Moisture:	decanted: (Y/N) N	Date Extracted	d: <u>10/15/99</u>	
	Volume: <u>500.0</u> (uL)	Date Analyzed	: <u>10/29/99</u>	
njection Volume:	2.0 (uL)	Dilution Facto	or: <u>1.</u>	<u>0</u>
PC Cleanup: (Y/N) CAS NO.	YpH:	CONCENTRATION UNI (ug/L or ug/Kg) <u>U</u>		
100-02-7 132-64-9 121-14-2 84-66-2 7005-72-3 86-73-7 100-01-6 534-52-1 86-30-6 101-55-3 118-74-1 87-86-5 85-01-8 120-12-7 84-74-2 206-44-0 129-00-0 85-68-7 91-94-1 56-55-3 218-01-9 117-84-0 205-99-2 207-08-9 50-32-8	Di-n-ButylphthalateFluoranthenePyreneButylbenzylphthalate3,3'-DichlorobenzioBenzo(a)Anthracene	nylether	1100 1400 1200 1300 1200 1200 1200 1300 1300 1300 1300 1300 1400	
53-70-3	Dibenzo(a,h)Anthra Benzo(g,h,i)Peryle	cene	1500 1400	18
(1) - Cannot be	separated from Diphe	 nylamine		

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKJS

ak .ame: <u>CEIMIC CORP</u>	Contract: TETRA	rech		
ab Çode: <u>CEIMIC</u> Case No.: <u>770413</u>	SAS No.:	SDG No.:	02SU0:	2
Matrix: (soil/water) <u>SOIL</u>	Lab Sam	ple ID: <u>S10</u>	15-B2J	
Sample wt/vol: 30.0 (g/mL)	Lab File	e ID: <u>JY9</u>	81	**************************************
Level: (low/med) LOW	Date Red	ceived:		
Moisture: decanted: (Y/N)	N Date Ext	tracted: <u>10/</u>	15/99	
oncentrated Extract Volume: 500.0	(uL) Date And	alyzed: <u>10/</u>	29/99	
njection Volume: 2.0(uL)	Dilution	n Factor:	1.0	
PC Cleanup: $(Y/N) \underline{Y}$ pH: CAS NO. COMPOUND	CONCENTRATION	ON UNITS: /Kg) <u>UG/KG</u>	Q	
108-95-2	enzene enzene enzene Chloropropane) -Propylamine ene enol choxy) Methane enol cobenzene delene chylphenol nalene cophenol	160 160 160 160 160 160 160 160 160 160	מממממממממממממממממממממממ	1 (
FC	ORM I SV-1		3	/90

SBLKJS

ab Name: CEIMIC CORP	Contract: TETRA TECH
ab Çode: CEIMIC Case No.: 770413	SAS No.: SDG No.: 02SU02
atrix: (soil/water) <u>SOIL</u>	Lab Sample ID: <u>S1015-B2J</u>
ample wt/vol: 30.0 (g/mL)	Lab File ID: <u>JY981</u>
evel: (low/med) <u>LOW</u>	Date Received:
Moisture: decanted: (Y/N)	N Date Extracted: 10/15/99
oncentrated Extract Volume: 500.0	_(uL) Date Analyzed: <u>10/29/99</u>
njection Volume:2.0(uL)	Dilution Factor: 1.0
PC Cleanup: $(Y/N) \underline{Y}$ pH:CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u> Q
51-28-52,4-Dinitrophenol 100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22,4-Dinitroto 84-66-2Diethylphthal 7005-72-34-Chloropheny 86-73-7Fluorene 100-01-64-Nitroanilin 534-52-14,6-Dinitro-2 86-30-6N-Nitrosodiph 101-55-34-Bromophenyl 118-74-1Hexachloroben 87-86-5Pentachloroph 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-Butylpht 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylph 91-94-13,3'-Dichloro 56-55-3Benzo(a)Anthr 218-01-9Chrysene 117-81-7	160
(1) - Cannot be separated from	
(I) - camuot be separated from	nthuematamine

SOIL SEMIVOLATILE SURROGATE RECOVERY

ab Mame: CEIMIC CORP Contract: TETRA TECH

ab code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02

level:(low/med) LOW

	EPA	S1	S2	S3	S4	S5	S6	S 7	S8	TOT
	SAMPLE NO.	(NBZ)#	(FBP)#	(TPH)#	(PHL)#	(2FP)#	(TBP)#	(2CP)#	(DCB)#	OUT
	========	=====	=====	=====	=====	=====	=====	=====	=====	===
4x 01	102SU02	56	62	74	58	57	60	56	56	0
02	SLCSJS	67	72	83	67	70	82	65	62	0
03	SBLKJS	65	70	78	66	63	69	63	63	0
	-									

				QC LIMITS	
S1	(NBZ)	=	Nitrobenzene-d5	(23-120)	
S2	(FBP)	=	2-Fluorobiphenyl	(43-116)	
S3	(TPH)	=	Terphenyl-d14	(18-137)	
S4	(PHL)	=	Phenol-d5	(24-113)	
S5	(2FP)	=	2-Fluorophenol	(25-121)	
S6	(TBP)	=	2,4,6-Tribromophenol	(19-122)	
S7	(2CP)	=	2-Chlorophenol-d4	(20-130)	(advisory)
S8	(DCB)	=	1,2-Dichlorobenzene-d4	(20-130)	(advisory)

[#] Column to be used to flag recovery values

^{*} Values outside of contract required QC limits D Surrogate diluted out

^{**} Sample 1025002 was double spiked with internal standards.

LABORATORY CONTROL SPIKE SUMMARY SEMIVOLATILE ORGANIC ANALYSIS EPA Method 8270 SOIL

LAB SAMP ID LAB QC ID	S1015-LCS2	SAMPLE ID TYPE		DATA	RELEASE A	AUTHORIZED	BY
FILE NAME TUNE STANDARD BLANK TAPE/POS	JY980 JY974 JY975 JY981	RECEIVED EXTRACTED ANALYZED VERIFIED	10/15/99 10/29/99 1	18:23	METHOI FRACTION INST ANALYST BOTTLE	N BNA T MS10	
% MOISTURE (DECANTED) DIL FACTOR SAMPLE:	1.000	pH CLEANUP EXTRACT METHOD	GPC SONC		LEVEI MATRIX UNITS		
CONDITIONS:							

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS	
C315 C325	108-95-2 111-44-4	Phenol bis(2-Chloroethyl)Ether	50.00 50.00	34.73 31.09	69.46 62.18	
C330	95-57-8	2-Chlorophenol	50.00	32.08	64.16	
C345	100-51-6	Benzyl Alcohol	50.00	45.06	90.12	
	95-48-7	2-Methylphenol	50.00	34.99	69.98	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	33.36	66.72	
C365	106-44-5	4-Methylphenol	50.00	36.39	72.78	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	33.15	66.30	
C375	67-72-1	Hexachloroethane	50.00	28.25	56.50	
C410	98-95-3	Nitrobenzene	50.00	31.64	63.28	
C415	78-59-1	Isophorone	50.00	32.73	65.46	
C420	88-75-5	2-Nitrophenol	50.00	34.05	68.10	
C425	105-67-9	2,4-Dimethylphenol	50.00	29.67	59.34	
C430	65-85-0	Benzoic Acid	100.0	68. 6 8	68,68	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.14	64.28	
C440	120-83-2	2,4-Dichlorophenol	50.00	34.78	69.56	
C450	91-20-3	Naphthalene	50.00	31.89	63.78	
C455	106-47-8	4-Chloroaniline	50.00	20.15	40.30	
C460	87-68=3 -	Hexachlorobutadiene	50.00	30.30	60.60	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	37.72	75.44	
C470	91-57-6	2-Methylnaphthalene	50.00	32.54	65.08	
C510	77-47-4	Hexachlorocyclopentadiene	50.00	31.06	62.12	
C515	88-06-2	2,4,6-Trichlorophenol	50.00	38.78	77.56	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	38.86	77.72	7
C525	91-58-7	2-Chloronaphthalene	50,00	35.04	70.08	•
C530	88-74-4	2-Nitroaniline	50.0 0	38.59	77.18	
C535	131-11-3	Dimethyl Phthalate	50.00	38.47	76.94	
C540	208-96-8	Acenaphthylene	50.00	36.75	73.50	
C543	606-20-2	2,6-Dinitrotoluene	50.00	40.32	80.64	

LABORATORY CONTROL SPIKE SUMMARY SEMIVOLATILE ORGANIC ANALYSIS EPA Method 8270 SOIL

•			CONC	RECOVERY
CODE	CAS NO	COMPOUND	SPIKED _	CONC % FLGS
C545	99-09-2	3-Nitroaniline	50.00	31.63 63.26
C550	83-32-9	Acenaphthene	50.00	35.23 70.46
C555	51 - 28-5	2,4-Dinitrophenol	50.00	32.99 65.98
C560	100-02-7	4-Nitrophenol	50.00	40.77 81.54
C565	132-64-9	Dibenzofuran	50.00	36.23 72.46
C570	121-14-2	2,4-Dinitrotoluene	50.00	41.74 83.48
C580	84-66-2	Diethylphthalate	50.00	39.39 78.78
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	36.75 73.50
C590'	86-73-7	Fluorene	50.00	36.12 72.24
C595	100-01-6	4-Nitroaniline	50.00	36.64 73.28
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	39.50 79.00
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	38.39 76.78
C625	101-55-3	4-Bromophenyl-phenylether	50.00	38.32 76.64
C630	118-74-1	Hexachlorobenzene	50.00	37.90 75.80
C635	87-86-5	Pentachlorophenol	50. 0 0	40.58 81.16
C640	85-01-8	Phenanthrene	50.00	38.57 77.14
C645	120-12-7	Anthracene	50.00	38.20 76.40
C646	86-74-8	Carbazole	50.00	40.40 80.80
C650	84-74-2	Di-n-Butylphthalate	50.00	39.09 78.18
5	206-44-0	Fluoranthene	50.00	40.51 81.02
C/15	129-00-0	Pyrene	50. 0 0	42.22 84.44
_C720	85-68-7	Butylbenzylphthalate	50.00	41.96 83.92
	91-9 4- 1	3,3'-Dichlorobenzidine	50.00	30.38 60.76
C730	56-55-3	Benzo(a)Anthracene	50.00	41.99 83.98
C740	218-01-9	Chrysene	50.00	40.92 81.84
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	42.37 84.74
C760	117-84-0	Di-n-Octyl Phthalate	50.00	43.51 87.02
C765	205-99-2	Benzo(b)Fluoranthene	50.00	40.68 81.36
C770	207-08-9	Benzo(k)Fluoranthene	50.00	40.95 81.90
C775	50-32-8	Benzo(a) Pyrene	50.00	40.26 80.52
C780	193-39-5	Indeno (1,2,3-cd) Pyrene	50.00	43.48 86.96
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	43.98 87.96
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	41.83 83.66

PESTICIDE ANALYSES

102SU02 ab ame: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 atrix: (soil/water) SOIL Lab Sample ID: 990890-01 ample wt/vol: 30.0 (g/mL) G Lab File ID: Moisture: 4 decanted: (Y/N) N Date_Received: 10/13/99 extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99 Concentrated Extract Volume: ____5000 (uL) Date Analyzed: 10/21/99 njection Volume: 1.00 (uL) Dilution Factor: ___1.00 PC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> Q 319-84-6-----alpha-BHC 1.8 U 319-85-7-----beta-BHC 1.8 U 319-86-8-----delta-BHC 1.8 U 58-89-9----gamma-BHC (Lindane) 1.8 U 76-44-8-----Heptachlor 1.8 U 309-00-2-----Aldrin 1.8 U 1024-57-3-----Heptachlor epoxide 1.8 U 959-98-8-----Endosulfan I_____ 1.8 U 60-57-1-----Dieldrin 3.4 U 72-55-9----4,4'-DDE 3.4 U 72-20-8-----Endrin 3.4 U 33213-65-9-----Endosulfan II____ 3.4 U 72-54-8-----4,4'-DDD 3.4 U 1031-07-8-----Endosulfan sulfate 3.4 U 50-29-3-----4,4'-DDT 3.4 U 72-43-5-----Methoxychlor 18 U 53494-70-5----Endrin ketone 3.4 U 7421-93-4-----Endrin aldehyde 3.4 U 5103-71-9-----alpha-Chlordane 1.8 U 5103-74-2----gamma-Chlordane 1.8 U 8001-35-2-----Toxaphene 180 U

1031-07-8-----Endosulfan sulfate

5103-71-9-----alpha-Chlordane

5103-74-2----gamma-Chlordane

50-29-3-----4,4'-DDT

8001-35-2----Toxaphene

72-43-5-----Methoxychlor

53494-70-5----Endrin ketone

7421-93-4-----Endrin aldehyde

PBLK01 ab Name: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 (atrix: (soil/water) SOIL Lab Sample ID: P1015-B3 Tample wt/vol: 30.0 (g/mL) G Lab File ID: Moisture: ____ decanted: (Y/N). ___ Date-Received: Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99 injection Volume: <u>1.00</u> (uL) Dilution Factor: ___1.00 PC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) NCONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 0 319-84-6----alpha-BHC_____ 1.7 0 319-85-7-----beta-BHC 1.7 0 319-86-8-----delta-BHC 1.7 0 58-89-9-----qamma-BHC (Lindane) 1.7 U 76-44-8-----Heptachlor _____ 1.7 0 309-00-2----Aldrin 1.7 0 1024-57-3-----Heptachlor epoxide 1.7 U 959-98-8-----Endosulfan I 1.7 U 60-57-1-----Dieldrin 3.3 U 72-55-9-----4,4'-DDE 3.3 U 72-20-8-----Endrin 3.3 U 33213-65-9----Endosulfan II 3.3 [U 72-54-8-----4,4'-DDD 3.3 0

FORM I PEST

3.3 U

3.3 U

3.3 U

3.3 U

1.7 U

1.7 U

U

U

17

170

PLCS01 La lame: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 Matrix: (soil/water) SOIL Lab Sample ID: P1015-LCS3 Sample wt/vol: 30.0 (g/mL) G Lab File ID: % Moisture: 0 decanted: (Y/N) N Date Received: 10/15/99Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99 Injection Volume: 1.00 (uL) Dilution Factor: 1.00 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/KG</u> 319-84-6-----alpha-BHC 9.8 319-85-7-----beta-BHC 10 319-86-8-----delta-BHC 11 58-89-9----gamma-BHC (Lindane) 10 76-44-8------Heptachlor 9.5 309-00-2-----Aldrin 10 1024-57-3-----Heptachlor epoxide 11 959-98-8-----Endosulfan I_____ 7.4 60-57-1------Dieldrin_ 12 72-55-9-----4,4'-DDE 11 72-20-8-----Endrin 12 33213-65-9-----Endosulfan II 9.8 72-54-8-----4,4'-DDD 11 1031-07-8-----Endosulfan sulfate 12 50-29-3-----4,4'-DDT 12 72-43-5-----Methoxychlor J 15 11 53494-70-5----Endrin ketone 7421-93-4-----Endrin aldehyde 12 5103-71-9-----alpha-Chlordane 1.7 U 5103-74-2----gamma-Chlordane 1.7 U 8001-35-2-----Toxaphene 170 U

FORM I PEST

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CEIMIC CORP Contract: TETR	PIBLKOA A TECH
Lab Code: <u>CEIMIC</u> Case No.: <u>770413</u> SAS No.:	
Matrix: (soil/water) <u>WATER</u> Lab Sa	ample ID: PIBLKOA
Sample wt/vol: 1000 (g/mL) ML Lab_F.	ile ID:
Moisture: decanted: (Y/N) Date	Received:
Extraction: (SepF/Cont/Sonc) Date	Extracted:
Concentrated Extract Volume: (uL) Date A	Analyzed: <u>10/13/99</u>
Injection Volume: 1.00 (uL) Dilut	ion Factor: 1.00
SPC Cleanup: (Y/N) N pH: Sulfu	r Cleanup: (Y/N) <u>N</u>
CONCENTRATION CAS NO. COMPOUND (ug/L or ug/	
319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC 58-89-9gamma-BHC (Lindane)	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U

PIBLKOB La Name: CEIMIC CORP Contract: TETRA TECH Lab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 Matrix: (soil/water) WATER Lab Sample ID: PIBLKOB Sample wt/vol: 1000 (g/mL) ML Lab File ID: % Moisture: _____ decanted: (Y/N) ___ Date Received: _____ Extraction: (SepF/Cont/Sonc) ____ Date Extracted: ____ Concentrated Extract Volume: ____ (uL) Date Analyzed: 10/21/99 Dilution Factor: 1.00 Injection Volume: 1.00 (uL) GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> Q 0.050 U 319-84-6----alpha-BHC 319-85-7-----beta-BHC 0.050 U 319-86-8-----delta-BHC 0.050 U 58-89-9----gamma-BHC (Lindane)_____ 0.050 U 76-44-8-----Heptachlor____ 0.050 U 309-00-2-----Aldrin 0.050 U 1024-57-3-----Heptachlor epoxide 0.050 U 959-98-8-----Endosulfan I_____ 0.050 U 60-57-1------Dieldrin 0.10 U 72-55-9-----4,4'-DDE____ 0.10 U 72-20-8-----Endrin 0.10 U 33213-65-9-----Endosulfan II 0.10 0 0.10 U 72-54-8-----4,4'-DDD 1031-07-8-----Endosulfan sulfate 0.10|U 50-29-3----4,4'-DDT 0.10 U 72-43-5-----Methoxychlor____ 0.50 U 0.10|U 53494-70-5----Endrin ketone 7421-93-4----Endrin aldehyde_____ 0.10 U 5103-71-9-----alpha-Chlordane____ 0.050 U

FORM I PEST

5103-74-2-----gamma-Chlordane

8001-35-2----Toxaphene

OLMO3.0

0.050 U

5.0 U

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CEIMIC CORP Contract	: TETRA TECH
Lab Code: CEIMIC Case No.: 770413 SAS No.	
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: PIBLKOC
Sample wt/vol: 1000 (g/mL) ML	Lab File ID:
Moisture: decanted: (Y/N)	Date Received:
Extraction: (SepF/Cont/Sonc)	Date Extracted:
Concentrated Extract Volume: (uL)	•
Injection Volume: <u>1.00</u> (uL)	Dilution Factor:1.00
GPC Cleanup: (Y/N) N pH:	
CONCE CAS NO. COMPOUND (ug/L	
319-84-6	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U
5103-74-2gamma-Chlordane	0.050 U

FORM I PEST

DIDI KAD

La ame: <u>CEIMIC CORP</u>	Contract: TETRA	TECH
Lab Code: CEIMIC Case No.	: <u>770413</u> SAS No.:	SDG No.: 02SU02
Matrix: (soil/water) WATER	L a b Sa	ample ID: <u>PIBLKOD</u>
Sample wt/vol: 1000	(g/mL) ML Lab Fi	le ID:
% Moisture: decant	ed: (Y/N) Date R	Received:
Extraction: (SepF/Cont/Son	.c) Date E	Extracted:
Concentrated Extract Volume:	(uL) Date A	analyzed: <u>10/22/99</u>
Injection Volume: <u>1.00</u> (uL	Diluti	on Factor:1.00
GPC Cleanup: (Y/N) N	pH: Sulfur	Cleanup: (Y/N) N_
CAS NO. COMPO	CONCENTRATIO UND (ug/L or ug/	ON UNITS: 'Kg) <u>UG/L</u> Q
319-85-7beta- 319-86-8delta- 58-89-9	-BHC (Lindane) chlor n chlor epoxide ulfan I rin DDE n ulfan II DDD ulfan sulfate DDT xychlor n ketone n aldehyde -Chlordane -Chlordane	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U

FORM I PEST

PIBLKOE	

Lab Name: CEIMIC CORP Contract: TETR	A TECH
Lab Code: CEIMIC Case No.: 770413 SAS No.:	SDG No.: 02SU02
Matrix: (soil/water) <u>WATER</u> Lab S	ample ID: PIBLKOE
Sample wt/vol: 1000 (g/mL) ML Lab F	ile ID:
Moisture: decanted: (Y/N) Date	Received:
Extraction: (SepF/Cont/Sonc) Date	Extracted:
Concentrated Extract Volume: (uL) Date	Analyzed: <u>10/25/99</u>
Injection Volume: <u>1.00</u> (uL) Dilut	ion Factor: <u>1.00</u>
GPC Cleanup: (Y/N) N pH: Sulfu	r Cleanup: (Y/N) N
CONCENTRATI CAS NO. COMPOUND (ug/L or ug	
319-84-6	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U

FORM I PEST

PIBLKOF

La Name: <u>CEIMIC CORP</u> Contract: <u>TETRA</u>	TECH	
Lab Code: CEIMIC Case No.: 770413 SAS No.:	SDG No.:	<u>02SU02</u>
Matrix: (soil/water) <u>WATER</u> Lab Sar	mple ID: <u>PIBI</u>	K0F
Sample wt/vol: 1000 (g/mL) ML Lab Fil	le ID:	POST A STATE CONTRACT OF THE STATE CONTRACT
% Moisture: decanted: (Y/N) Date Re	eceived:	****
Extraction: (SepF/Cont/Sonc) Date Extraction:	xtracted:	
Concentrated Extract Volume: (uL) Date Ar	nalyzed: <u>10/</u> 2	25/99
Injection Volume: 1.00 (uL) Dilution	on Factor:	1.00
GPC Cleanup: (Y/N) N pH: Sulfur	Cleanup: (Y/M	1) <u>N</u>
CONCENTRATION CAS NO. COMPOUND (ug/L or ug/l		Q
319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC 58-89-9gamma-BHC (Lindane) 76-44-8Heptachlor 309-00-2Aldrin 1024-57-3Heptachlor epoxide 959-98-8Biddrin 72-55-94,4'-DDE 72-20-8Endosulfan II 72-54-8Endosulfan II 72-54-8Endosulfan Sulfate 50-29-3	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.1	ם ם ם ם ם ם ם ם ם ם ם ם ם ם

FORM I PEST

PIBLK1A ab Name: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 latrix: (soil/water) WATER Lab Sample ID: PIBLK1A ample wt/vol: 1000 (g/mL) ML Lab File ID: Moisture: _____ decanted: (Y/N) ___ Date Received: _____ xtraction: (SepF/Cont/Sonc) _____ Date Extracted: ____ Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/13/99 njection Volume: 1.00 (uL) Dilution Factor: 1.00 PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) <u>UG/L</u> 319-84-6-----alpha-BHC_____ 0.050 U 319-85-7-----beta-BHC_____ 0.050 U 319-86-8-----delta-BHC 0.050 U 58-89-9----gamma-BHC (Lindane) 0.050 U 76-44-8------Heptachlor 0.050 U 309-00-2-----Aldrin 0.050 U 1024-57-3-----Heptachlor epoxide_____ 0.050 0 959-98-8-----Endosulfan I 0.050 U 60-57-1-----Dieldrin 0.10 U 72-55-9-----4,4'-DDE____ 0.10 0 72-20-8-----Endrin 0.10 U 33213-65-9----Endosulfan II 0.10 U 72-54-8-----4,4'-DDD 0.10 U 1031-07-8-----Endosulfan sulfate____ 0.10 U 50-29-3-----4,4'-DDT 0.10 U 72-43-5----Methoxychlor 0.50 U 53494-70-5-----Endrin ketone 0.10 \ 7421-93-4-----Endrin aldehyde 0.10 U 5103-71-9-----alpha-Chlordane 0.050 0 5103-74-2----gamma-Chlordane 0.050 U 8001-35-2----Toxaphene 5.0 U

FORM I PEST

Sample wt/vol: 1000 (g/mL) ML Lab File ID: Moisture: decanted: (Y/N) Date Received: Extraction: (SepF/Cont/Sonc) Date Extracted: Concentrated Extract Volume: (uL) Date Analyzed: 10/21/99	Lal lame: CEIMIC CORP Contract: TETR	PIBLK1B A_TECH_
### Sample wt/vol: 1000 (g/mL) ML Lab File ID: ### Moisture: decanted: (Y/N) Date Received:	Lab Code: CEIMIC Case No.: 770413 SAS No.:	SDG No.: 02SU02
Moisture: decanted: (Y/N) Date Received:	Matrix: (soil/water) <u>WATER</u> Lab S	ample ID: <u>PIBLK1B</u>
Concentrated Extract Volume:	Sample wt/vol: 1000 (g/mL) ML Lab F	ile ID:
Concentrated Extract Volume:	Moisture: decanted: (Y/N) Date	Received:
Dilution Factor:	Extraction: (SepF/Cont/Sonc) Date	Extracted:
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q 319-84-6alpha-BHC	Concentrated Extract Volume: (uL) Date	Analyzed: <u>10/21/99</u>
CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q 319-84-6beta-BHC	njection Volume: 1.00 (uL) Dilut	ion Factor: <u>1.00</u>
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q 319-84-6alpha-BHC	GPC Cleanup: (Y/N) N pH: Sulfu	r Cleanup: (Y/N) <u>N</u>
319-85-7		
8001-35-2Toyaphene	319-86-8	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U 0.50 U 0.10 U

FORM I PEST

OLMO3.0

Lab Name: <u>CEIMIC CORP</u>	Contract: TETRA_TECH PIBLK1C
Lab Code: <u>CEIMIC</u> Case No.: <u>770413</u>	SAS No.: SDG No.: 02SU02
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: PIBLK1C
Sample wt/vol: 1000 (g/mL) ML	Lab File ID:
Moisture: decanted: (Y/N)	Date Received:
Extraction: (SepF/Cont/Sonc)	Date Extracted:
Concentrated Extract Volume:	(uL) Date Analyzed: <u>10/21/99</u>
njection Volume: 1.00 (uL)	Dilution Factor: 1.00
GPC Cleanup: (Y/N) N pH:	Sulfur Cleanup: (Y/N) N
CAS NO. COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u> Q
319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC 58-89-9gamma-BHC (Lind 76-44-8Heptachlor 309-00-2Heptachlor epox 959-98-8Endosulfan I 60-57-1Dieldrin 72-55-9Endrin 3213-65-9Endosulfan II 72-54-8	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U 0.50 U

FORM I PEST

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ab Name: CEIMIC CORP Contract: TETRA	TECH
ab Code: CEIMIC Case No.: 770413 SAS No.:	SDG No.: 02SU02
atrix: (soil/water) <u>WATER</u> Lab Sa	mple ID: PIBLK1D
ample wt/vol: 1000 (g/mL) ML Lab Fi	le ID:
Moisture: decanted: (Y/N) Date R	eceived:
xtraction: (SepF/Cont/Sonc) Date E	extracted:
oncentrated Extract Volume: (uL) Date A	nalyzed: <u>10/22/99</u>
njection Volume: <u>1.00</u> (uL) Diluti	on Factor: 1.00
PC Cleanup: (Y/N) N pH: Sulfur	Cleanup: (Y/N) N
CONCENTRATIO CAS NO. COMPOUND (ug/L or ug/	
319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8beta-BHC 58-89-9gamma-BHC (Lindane) 76-44-8Heptachlor 309-00-2Aldrin 1024-57-3Heptachlor epoxide 959-98-8Endosulfan I 60-57-1	0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.050 U 0.10 U 0.10 U 0.10 U

FORM I PEST

PIBLK1E Jab Name: CEIMIC CORP Contract: TETRA TECH ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02 fatrix: (soil/water) WATER Lab Sample ID: PIBLK1E ample wt/vol: 1000 (g/mL) ML Lab File ID: Moisture: ____ decanted: (Y/N). ___ Date Received: ____ Extraction: (SepF/Cont/Sonc) ____ Date Extracted: ____ Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/25/99 Injection Volume: 1.00 (uL) Dilution Factor: ____1.00 PC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u> CAS NO. COMPOUND Q 319-84-6----alpha-BHC 0.050 U 319-85-7-----beta-BHC 0.050 U 319-86-8-----delta-BHC 0.050 U 58-89-9-----gamma-BHC (Lindane) 0.050 U 76-44-8-----Heptachlor 0.050 U 309-00-2-----Aldrin 0.050 U 1024-57-3-----Heptachlor epoxide 0.050 U 959-98-8-----Endosulfan I 0.050 U 60-57-1-----Dieldrin 0.10 U 72-55-9-----4,4'-DDE 0.10 U 72-20-8-----Endrin 0.10 U 33213-65-9-----Endosulfan II 0.10 U 72-54-8-----4,4'-DDD 0.10 U 1031-07-8-----Endosulfan sulfate 0.10 U 50-29-3-----4,4'-DDT 0.10 U 72-43-5-----Methoxychlor 0.50 0 53494-70-5----Endrin ketone 0.10 U 7421-93-4----Endrin aldehyde 0.10 U 5103-71-9-----alpha-Chlordane 0.050 U 5103-74-2-----gamma-Chlordane 0.050 0

FORM I PEST

8001-35-2----Toxaphene

OLM03.0

5.0 U

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: CEIMIC CORP Contract: TETRA	PIBLK1F TECH
Lab Code: CEIMIC Case No.: 770413 SAS No.:	SDG No.: <u>025U02</u>
Matrix: (soil/water) <u>WATER</u> Lab Sam	ple ID: <u>PIBLK1F</u>
Sample wt/vol: 1000 (g/mL) ML Lab Fil	e ID:
Moisture: decanted: (Y/N) Date Re	ceived:
Extraction: (SepF/Cont/Sonc) Date Ex	tracted:
Concentrated Extract Volume: (uL) Date An	alyzed: <u>10/25/99</u>
njection Volume: 1.00 (uL) Dilutio	п Factor: <u>1.00</u>
PC Cleanup: (Y/N) N pH: Sulfur	Cleanup: (Y/N) N
CONCENTRATION CAS NO. COMPOUND (ug/L or ug/K	
319-84-6	0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50

SOIL PESTICIDE SURRÖGATE RECOVERY

ab Name: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02

•	EPA SAMPLE NO.		TCX 2 %REC #				OTHER (2)	TOT
		=====	=====	=====	=====	=====	=====	===
01	PBLK01	54	54	56	53			0
02	102SU02	49	44	57	55			0
03	PLCS01	57	56	59	57			0

QC LIMITS

TCX = Tetrachloro-m-xylene (32-103) (25-131) DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits

D Surrogate diluted out

FORMIII-LCS

LABORATORY CONTROL SPIKE RECOVERY

ib . _me: CEIMIC CORP

Contract: TETRA_TECH

to Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02

ethod Blank Spike: PLCS01 Laboratory ID: P1015-LCS3

atrix: Soil

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC LIMITS
alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor Aldrin Heptachlor Epoxide Endosulfan I Dieldrin 4,4'-DDE Endrin Endosulfan II 4,4'-DDD Endosulfan Sulfate 4,4'-DDT M oxychlor En_in Ketone Endrin Aldehyde	17 17 17 17 17 17 17 17 17 17 17 17 17 1	9.8 10 11 10 9.5 10 11 7.4 12 11 12 9.8 11 12 12 12 15 11	======================================	38-140 52-132 39-99 44-131 49-116 39-130 44-123 56-130 56-123 47-128 54-144 54-134 52-123 56-130 54-142 64-148 58-136 49-112

OMMENTS:

FORMIII-LCS

PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 102SU02

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Soil

Percent Solids: 96

Laboratory ID: 990890-01

Date Sample Extracted: 10/15/99
Date Sample Analyzed: 10/19/99
Associated Method Blank: P1015-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	35.0
lor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected + Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachioro-m-xylene	73	32 - 103
Decachlorobiphenyl	93	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	

METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1015-BL

Matrix: Soil

Ceimic Project: 990890

Date Sample Extracted: 10/15/99

Date Sample Analyzed: 10/19/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit		
Aroclor-1016	ND	33.0		
Aroclor-1221	ND	66.0		
Aroclor-1232	ND	33.0		
Aroclor-1242	ND	33.0		
Aroclor-1248	ND	33.0		
Aroclor-1254	ND	33.0		
Aroclor-1260	ND	33.0		

ND = Not detected + Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*		
Tetrachloro-m-xylenc	83	32 - 103		
Decachlorobiphenyl	95	25 - 131		

^{*} These limits are provided for advisory purposes.

Reported by:	Jol B	Approved by: _	, pt	

LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: P1015-LCS1

Date Sample Analyzed: 10/19/99

Matrix: Soil

Date Sample Prepared: 10/15/99

Associated Method Blank: P1015-B1

Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	165	140	85	30 - 150
Aroclor-1260	165	170	103	34 - 174

h = Not detected + Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	100	25 - 131

^{*} These limits are provided for advisory purposes.

Reported by:	Ods	Approved by:	R

CEIMIC CORPORATION

					Огу	anic P	герага	tion L	aborate	ory / Sa	mple P	герагат	ion Ben	ch She	ets					10/15/99
Project#:	F10890 Em lectul		Analyt	ical M	cthod:	R	5 Z						ol. ID: 🔄	_		3 /		Prep Da	te/Time:	10/15-/99
Client: 1	Etm lech 1	yJ5			ethod:								. ID:					Analysis	. Z	'
Blank ID: 2	7015-BI	ļ	LCS II	⊃: <u>¥</u>	1015	ر زلزی	/						ipike ID:					Analysis Matrix:	5011	
		l										XTRAC	T CLEA	N-UP S	ECTION	1		MIT &	DATE	
IDENT	IFICATION				RACTIO	Ņ SEC	TION				GC/MS	r			GC/LC	γ	Y	TRAN	SFER	COMMENTS
Client 1D	Ceimie ID	Vol/ Wt (ml/g)	Surr Vot ("h	MS Vol (μl)	% Moist	рН	Acid pH	Daxic Hq	Final Ext Vol*	Clenn Up Vol*	Post Clean Vote	Vol Trans*	Clean Up Vol*	Post Clean Vol=	Florisil Vol*	Post Florisit	1	GÇ/	GC/	
	+	30,0			1110131			1//	tone		V 01	118117	V01-	V01-	V 01-	V 01-	Trans*	-	ON/	
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1005000	P0890-01	30.D	1	/	4_		4	ਰ	1			10/	5/99				+	J	U	
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							<u></u>		<u> </u>	ا	l Il volum	cs are in	milliliter	s (ml) u	aless oth	erwise r	l noted.			1
Extr.Solvent	ID: <u>134168/1</u> ID: <u>+</u>	<u> 252</u> 48	Sodiu	n Sulfa zisor tr	ite Lot # nit: <u>\frac{\frac{1}{2}} \frac{1}{2}</u>	: <u>\$129</u>	571		Reagen						х ү			Corr	iment Co	odes:
Container Le	be 9310 -	65·	Surro	ate Ac	Juled By:	NAT	<u> </u>	-					- =	Silica Florisil	Lot#;			8	= Reexte 2nd Alie	A
							1 1 1 1 -											<u></u>		

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METAL ANALYSES

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK TOTAL METALS SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: PBS

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	ND	20
Antimony	1015	ND	5
Arsenic	1015	ND	Ī
Barium	1015	ND	ī
Beryllium	1015	ND	. 1
Cadmium	1015	ND	1
Calcium	1015	ND	50
Chromium	1015	ND	2
Cobalt	1015	ND	2
Copper	1015	ND	2
Iron	1015	ND	10
Lead	1015	ND	0.5
Magnesium	1015	ND	50
Manganese	1015	ND	1
Mercury	1015	ND	0.1
Nickel	1015	ND	4
Potassium	1015	ND	50
Selenium	1015	ND	1
Silver	1015	ND	1
Sodium	1015	ND	50
Thallium	1015	ND	1
Vanadium	1015	ND	5
Zinc	1015	ND	2

ND = Not Detected

Reported by:

Corporation

"Analytical Chemistry for Environmental Management"

TOTAL METALS SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sample Received: 10/13/99

Date Sampled: 10/12/99

Laboratory ID: 990890-01

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm)+

Percent Solids: 91

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	533	20
Antimony	1015	ND	4
Arsenic	1015	ND	0.9
Barium	1015	1.4	0.9
Beryllium	1015	ND	0.9
mium	1015	ND	0.9
ium	1015	ND	40
Chromium	1015	ND	2
Cobali	1015	ND	2
Copper	1015	ND	2
Iron	1015	109	9
Lead	1015	0.6	0.4
Magnesium	1015	ND	40
Manganese	1015	ND	0.9
Mercury	1015	ND	0.1
Nickel	1015	ND	3
Potassium	1015	ND	40
Selenium	1015	ND	0.9
Silver	1015	ND	0.9
Sodium	1015	ND	40
Thallium	1015	ND	0.9
Vanadium	1015	ND	4
Zinc	1015	ND	2

ND = Not Detected + Dry weight basis. -

Reported by:

Metals Page 2 10 Dean Knauss Drive, Narragansett, RI 02882 · Tel: (401) 782-8900 · Fax: (401) 782-8905

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY TOTAL METALS SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Ceimic Project: 990890

Laboratory Control Spike ID: LCSS

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm)

Target Analyte	Preparation Batch	True Value	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1015	5250	3930	74.8	60 - 108
Antimony	1015	33.0	25.8	78.2	37 - 153
Arsenic	1015	93.9	93.9	0.001	71 - 127
Barium	1015	330	2 67	80.9	67 - 123
Beryllium	1015	42.7	39.0	91.3	80 - 112
Cadmium	1015	97.2	91.2	93.8	76 - 108
Calcium	1015	1320	1160	87.7	80 - 120
Chromium	1015	46.0	42.1	91.5	80 - 112
Cobalt	1015	120	108	90.0	78 - 104
Соррег	1015	147	137	93.2	75 - 111
ron	1015	10200	8700	85.3	46 - 128
Lead	1015	135	122	90.4	79 - 115
Magnesium	1015	2340	2010	86.0	70 - 104
Manganese	1015	166	147	88.6	82 - 104
Mercury	1015,	2.17	2.67	≯ 123.0	67 - 117
Nickel	1015	138	126	91.3	68 - 114
Potassium	1015	1480	1280	86.3	80 - 120
Selenium	1015	96.0	94.2	98.1	59 - 129
Silver	1015	86.7	89.8	103.6	79 - 119
Sodium	1015	845	669	79.2	73 - 107
Thallium	1015	45.7	46.1	100.9	77 - 127
Vanadium	1015	65.1	59.3	91.1	73 - 111
Zinc	1015	75.0	66.1	88.1	79 - 109

^{*} Outside worked chart criteria but within manu Sectorer's limits.

Reported by:

Approved by:

Double To toulli 50

Gwsub Ratson

Ceimic Corporation

Metals Laboratory Metals Preparation Logbook

Review: BQ 10/16/79
Analyst: 77

Date: 10/15/94 Color Clarity Artifacts & Prep Sample Final Ceimic ID Before/After, Texture Client ID LCS ID pH Wt/Vol Spike ID Vol Before/After Comments Type 12 100ml 100 ml mw-41A 990896-10 dr. 1 MW-41B chless dilas Diss 790896-61 MW-29 -12 MW-19 MW-41C eldess clocks MW-28A -05 MW-28B MW-12 وعليك 1 MW.47A MW-478 MW-4/A MW-41B 1415 PBS. # 854, 890 1015 625 # 554, 890 M990908A 1.000 56-03-25 490884-ci mel 1 ch 5B-19-03 1.34 1025402 1.28 990 890 - 01

Col	or =	red, b	iue,	yellow	, green	, orange	, violes,	white,	brown,	grey, black	c, colorles
-	*.		•								

Clarity = clear, cloudy, opaque

Texture = fine (powder), medium (sand), coarse (large crystals or rocks)

Comments = artifacts and changes (ex emulsion formation)

LCS ID includes volume taken and Ceimic ID

Q/	1.7	Mentoniesal	: (M 9909201)
		•	1104090-01

Pipette ID:	Prep ty
1000 ш =	pH≖
= لµ 400	Spike 1
Acid Lot #(s):	Spike \
H,O, Lot #: 1 990927A	
/ IIIIII - MROGICIZA	
1299x65163	_
* 1 conc Ha - R29 2823 M.	5
1 / continue	
A	

pe ICAP (1) or Zeeman (Z) <2 or >2 for waters D = includes volume taken and Ceimic ID Witness: ____

005

Ceimic Corporation Classical Chemistry Laboratory % Solids Logbook

Date/Time	Date/Time	Ceimic ID	Client ID	Tare	Wet w Gross	eight Net	Gross #1	Dry Weight Gross #2	Net			Review
<u>ln</u>	Out			<u> </u>	l <u> </u>	g 7 / 17	g	g	g	% Solids	Analyst	Ву
10/2/8 15.52	14/0/75 89.30	190883-11	GN-D008406	1.27	8.98	7.67	7.97		6.70	87.1	<i>pg</i>	Bamis
418/11:11:15	10/11/17 09:00	470884-01	ઽ6-લ3·25	1.30	7.35	6.05	6.52	工	5.22	86.3	M	Barolla
		-03	28-19-03	1.30	8.1Z	6.8Z	6.80		5.50	80°P		
\ \		110890-01	105270S	1.30	7.47	8.19	8.77	V	7.47	91.2	V	
10/18/19		990897-01	DOO 276	1.30	8.63	7.33	4.39		3.09	42.2	K\$	
		-02	DOO 277	1.30	9.43	8.13	5,03		3.73	45.8		
		-03	278	1.30	8.58	7.28	5.69		4.39	60,3		
		-04	DOO 279	1.29	8.72	7.43	5.35		4.06	54.6		
		-010	t diso	1.29	8.62	7. 33	5, 18		3.89	53.1		
		-05	Aco 280	1.30	9.71	8.41	6.04		4.74	56.4		
		-06	000281	1.30	8.73	7.43	5.38		4.08	54.9		
		-07	000232	1.30	8.26	6.96	3.90		2.60	37.4		
		-08	000 283	1.30	9.91	8.61	4.56		3,26	37.9		
		-09	000 284	1.30	9.09	7.79	4.63		3,33	42.7		
	<u> </u>	-10	000285	1.30	9.48	8.18	7.97		6.67	81.5		
		- 11	000286	1.30	8.85	7.55	6.53		5.23	<u>69.3</u>		
	!	712	200287	1.30	9.08	7.73	7.90		660	84.8		
	4	- 13	000 233	1.29	9.09	7.30	7.51	l l	(5.30	80.8		

All weights must be carried out to 2 decimal places % solids = (net dry weight/ net wet weight)*100

Dry samples ≥ 12 hours at 105°C to 105°C

^{*} Use only when proving constant weight.

"Analytical Chemistry for Environmental Management"

November 19, 1999

Ms. Lee Leck Tetra Tech NUS Foster Plaza VII Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. The 3 aqueous samples were taken from the field on October 27, 1999 and received at Ceimic Corporation on October 28, 1999.

These samples are reported under Ceimic Project Number 990922, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D Laboratory Manager

NP/djj

Enclosures

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Volatiles	08
Semivolatiles	<i>9</i>
Pesticides	
PCB	46
Metals	5d
Inorganic Analytes	59

PROJECT NARRATIVE

SDG Narrative

The enclosed data package is in response to Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. Under this SDG there are 5 VOA, 4 SVOA, 4 PEST and 4 PCB analyses for 3 aqueous samples which were received at Ceimic Corporation on October 28, 1999.

This data package includes the analyses for the following samples from SDG No. 022S01:

(1)	Client ID	Ceimic ID	Analysis	
	BRO-102-2S-01	990922-01	VOA, SVOA, PEST, PCB	
	BRO-102-1S-01 MS/MSD		VOA, SVOA, PEST, PCB	
	TB102799-02	990922-03	VOA	

The submitted data covers the analyses of the Volatiles (VOA), Semivolatiles (SVOA), Pesticides (PEST) and PCB fractions and their associated blanks and QA/QC. CEIMIC would like to highlight the following points pertaining to the analyses performed for this case:

(2) Sample Receipt

All samples were received intact and properly preserved.

The cooler temperatures upon receipt are annotated on the Chain of Custodies and on the Ceimic Sample Receiving Checklist.

(3) Instrumentation and Column Identification

The following instruments were used for the analyses:

GC/MS Analysis

A. VOA

MS12: HP5973 GC/MS using 20 m x 0.18 mm ID, 1 μ m film thickness DB-624 capillary column.

MS15: HP5970B GC/MS using 105 m x 0.53 mm ID, 3 μ m film thickness VOCOL megabore column.

B. SVOA

MS1: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5 μm film thickness DB-5 fused silica capillary column.

MS10: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5 μm film thickness DB-5 fused silica capillary column.

GC Analysis

C. PEST

AD4_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-5 megabore column GC-5 (J.W. Scientific).

AD5_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-1701 megabore column GC-5 (J.W. Scientific).

D. PCB

AD17_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-608 megabore column GC-6 (J.W. Scientific).

AD18_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-5 megabore column GC-6 (J.W. Scientific).

(4) Sample Information

Additional qualifier: "x"

An "x" qualifier is flagged by Formaster software whenever the data is manually edited.

The letters "M" for GC/MS and "FF" for GC are used on the raw data of the quantitation report whenever a manual integration is performed. These data manipulations are done only to correct for computer integration error.

A. VOA Fraction (Method 8260B)

No noncompliance is noted.

B. SVOA Fraction (Method 8270C)

No noncompliance is noted.

C. PEST Fraction (Method 8081A)

Sample O1022S01 had low DCB recovery on both columns.

D. PCB Fraction Method 8082

No noncompliance is noted.

E. PAH Fraction Method 8310

No noncompliance is noted.

Deviation from the SOW

None other than specified above.

End of SDG Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Neil Pothier, Laboratory Manager

Date

CHAIN OF CUSTODY

T	TETI	RA TECH NUS, INC.	CHAIN OF C	CUSTO	YDC	,	NUMBER	c	99070	5 NOP) 1	F	PAGE	OF	<u></u>
PROJ	ECT NO:	SITE NAME: OLF Browsow	PROJECT TOWNY FIELD OPI	MANA	GER AN	D PHONE / ららつ	NUMBER		_	LAB	ORATOR	Y NAME AN	ID CONTA	ACT:	
SAMP	LERS (SIC	ENATURE	FIELD OP	ev / WAYB	FL COL	K/11'~	· · · · · · · · · · · · · · · · · · ·			CITY	O D	ecen /	Knou	55 Dr	
		•		ج	5096		NER TYP C (P) or G	E		$-\frac{ N }{2}$	rivan!	gause	# 1K	7	
RUSH	DARD TAT	1				PRESER USED	RVATIVE				//	//			
1999		3 0	×	(C)	F CONTAINERS	THEOF	MALYSIS		νου (χ.)	PUZ M	المرام المامع	3/			
DATE	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	O O	//			\e'//	///·/				/ (COMMENTS
		BRO-102-25-01		سي	9	X	X	X	X	X					
10/7	1555	BRU-102-15-01		0	9	7	×	X	7	X					
		BRO-102-17-0141		هـ	9	X	4	4	7			-		ms/p	15D
1927	0700	TB 102799-02	awa	_خ	Z	X							***************************************		
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								and the second s	an and advantage to an 1-1-70 feet to					-	
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2. RE	MOUISH	while	DATE	H44.	1900 TIME	2	RECEIV 1401	ED BY	lla nu	<i>?</i> ()	ang pi a se		DATI	s 199	TIME
3. RE	LINGUISH	ED BY	DATE		TIME	3	RECEIV			\$8.44 \$1 \$1 \text{ \$1.15}			DATI	E	TIME
COMP	MENTS		Commission of the Commission o						dun sough a de et as Nado ett belanderen i	-	oproje suser-est sicious vos suss. El sebush	ga ng ng pg nganggapanaganan . Pana may nalamih Maji	Marin belgings de ov chies		
DIST	RIBUTIO	WHITE (ACCOMPANIES SAMPLE)			YELLOW	(FIELD CC	(אסר			PINK (F	ILE COP	()		FORM	3/99

CEIMIC CORPORATION Sample Receiving Checklist

LIMS	<u>990 922</u>	Cooler Number: 1 + 2
Client:	Tetra Tach NUS	Number of Coolers: 2
Project		Date Received: 10123199
	CTO 86	
۸.	PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 10/23/	199
1.	Have designated person initial here to acknowledge receipt of cooler: KO	_
2.	Did cooler come with a shipping slip (airbill, etc.)?	
	If YES, enter carrier name & airbill number here: Fx 809060213	3798
3.	Were custody seals on outside of cooler?	VES NO
	How many & where: 2 Front / back seal date: 10 / 27 / 99	seal name: <u>FCL</u>
4.	Were custody seals unbroken and intact at the date and time of arrival	(ES)NO
5 .	Did you screen samples for radioactivity using a Geiger Counter?	Reading: ND VES NO
6.	Chain of Custody #:	
7.	Were custody papers scaled in a plastic bag & taped inside to the lid?	VES NO
8.	Were custody papers filled out properly (ink, signed, etc.)?	WES NO
9.	Did you sign custody papers in the appropriate place?	VES NO
10.	Was project identifiable from custody papers?	YES NO
11.	If required, was enough ice used?	C Type of ice: COLES (YES) NO
₿.	LOG-IN PHASE: Date samples were logged-in: 10/28/199	× .
	by (print): Karen Williamsen (sign): Xestini	live lande
12.	Describe type of packing in cooler:	
13.	Were all bottles sealed in separate plastic bags?	NO GED
14.	Did all bottles arrive unbroken and were labels in good condition?	YES NO
15.	Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?	YES NO
16.	Did all bottle labels agree with custody papers? CN in Small poly, but a	YES NO 2 ~ 250 ml
17.	Were correct containers used for the tests indicated? Should be in 1 L	itspc.lyves 🔞
18.	Were samples received at the correct pH?	
19.	Was a sufficient amount of sample sent for tests indicated?	
20.	Were bubbles absent in VOA samples? If NO, list by sample#:	15-01 YES NO
21.	Laboratory labelling verified by: (Initials): KW (date): 16 / 28/	99

VOLATILE ANALYSES

"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: V151103-B2

Date Sample Analyzed: 11/03/99

Matrix: Aqueous -

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	l
Bromomethane	ND	i
V Chloride	ND	1
Charoethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	$\sim 1^{\circ}$
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
I, I, I-Trichloroethane	ND	. 1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	ì
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	. 1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	<i>Y</i>	Approved by:	<i>a/</i>	08
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"Analytical Chemistry for Environmental Management"

METHOD BLANK VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: V151103-B2

Date Sample Analyzed: 11/03/99

Matrix: Aqueous

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit	
Tetrachloroethene	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
Toluene	ND	1	
Chlorobenzene	ND	1	
Ethylbenzene	ND	1	
Styrene	ND	1	
Total Xylenes	ND	1	

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound		Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4		71	62 - 139
Dibromofluoromethane		95	75 - 125
Toluene-d8	•	98	75 - 125
Bromofluorobenzene		82	75 - 125

Reported by:

Approved by:

10

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Br nmethane	. ND	1
V Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
l, l-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	I .
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	. 1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by:	Y	Approved by:	a/\langle	11
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

). BRO-102-20 01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	, Quantitation Limit
Tetrachloroethene	ND	l
1,1,2,2-Tetrachloroethane	, ND	I
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	. 1
Total Xylenes	ND	ī
	· · · · · ·	

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	75	62 - 139	
Dibromofluoromethane	99	75 - 125	
Toluene-d8	94	75 - 125	
Bromofluorobenzene	82	75 - 125	

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Reported by:	Approved by:	12

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Laboratory ID: 990922-02

Date Sampled: 10/27/99

Date Sample Analyzed: 11/04/99

Date Sample Received: 10/28/99

Associated Method Blank: V151103-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Br methane	ND	1
Vi Chloride	ND	1
Chloroethane	ND	l
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	l
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1 .
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Нехалопе	ND	5
4-Methyl-2-Pentanone	ND	5

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Reported by:	Approved by:	4/	- Allen

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	.ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzenc	ND	1
Styrene	ND .	. 1
Total Xylencs	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)	
1,2-Dichloroethane-d4	74	62 - 139	
Dibromofluoromethane	95	75 - 12 5	
Toluene-d8	96	75 - 125	
Bromofluorobenzene	82	75 - 125	

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Reported by:	X	Approved by: $\underline{\mathcal{U}}/$	
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"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Matrix Spike ID: 990922-02

Date Sampled: 10/27/99

Date Sample Analyzed: 11/04/99

Date Sample Received: 10/28/99

Associated Method Blank: V151103-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Sailte Commound	Matrix Spike Matrix Spike Duplicate Recovery(%) Recovery(%)	DDD/W)	QC Limits(%)*		
Spike Compound			RPD(%)	RPD	Recovery
1,1-Dichloroethene	116	118	2	68	68 - 124
Trichtoroethene	103	108	4	75	75 - 120
Beigg ရက်	105	109	4	78	78 - 127
Toluene	112	116	4	71	71 - 132
Chlorobenzene	108	114	6	7 7	77 - 128

^{*} These limits are provided for advisory purposes.

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	80	86	62 - 139
Dibromofluoromethane	100	108	75 - 125
Toluene-d8	100	106	75 - 125
Bromofluorobenzene	100	94	75 - 125

Reported by:	Approved by:	GI	15

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

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Client Sample ID: TB102799-02 Laboratory ID: 990922-03

Date Sampled: 10/27/99 Date Sample Analyzed: 11/04/99

Date Sample Received: 10/28/99 Associated Method Blank: V151103-B2

Matrix: Aqueous Dilution Factor: 1

Concentration in: μ g/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	I
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	· 1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) VOLATILE ORGANICS ANALYSIS SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB102799-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-03

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1.2,2-Tetrachloroethane	ND	. 1
Total	ND	. 1
Ciobenzene	ND	1
Ethylbenzene	ND	l
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	69	62 - 139
Dibromofluoromethane	93	75 - 125
Toluene-d8	97	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by:	Approved by:	Q/<	J -	17
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"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY VOLATILE BLANK SPIKE SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: V151103-LCS

Date Sample Analyzed: 11/03/99

Matrix: Aqueous

Associated Method Blank: V151103-B2

Concentration: $\mu g/L$ (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
l, l-Dichloroethene	5	6	111	68 - 124
Trichloroethene	5	5	101	75 - 120
Benzene	5	5	102	78 - 127
Toluene	5	5	109	71 - 132
Chlorobenzene	5	5	109	77 - 128

^{*} These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)	
l,2-Dichloroethane-d4	75	62 - 139	
Dibromofluoromethane	97	75 - 125	
Foluene-d8	104	75 - 125	
Bromofluorobenzene	8 8	75 - 125	

SEMIVOLATILE ORGANIC ANALYSES

"Analytical Chemistry for Environmental Management"

METHOD BLANK SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: \$1030-B2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous -

Date Sample Extracted: 10/30/99

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	. 5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
lsophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	· 5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	5 5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5 5 5
2,6-Dinitrotoluene	ND	5
Diethylphthalat e	ND	5
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Approved by:

"Analytical Chemistry for Environmental Management"

METHOD BLANK SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: S1030-B2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous -

Date Sample Extracted: 10/30/99

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N ™itrosodiphenylamine (1)	ND	5
mophenol-phenylether	ND	5
hchlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	.
Anthracene	, ND	5
Carbazole	ND	5 ·
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by:	Approved by:	4/(_	21
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"Analytical Chemistry for Environmental Management"

METHOD BLANK SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: \$1030-B2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous -

Reported by: __

Date Sample Extracted: 10/30/99

Concentration in: $\mu g/L$ (ppb)

Surrogate Compound	Recovery(%)	QC Limits(%)*
3 Fl	£1	
2-Fluorophenol	51	21 - 110
Phenol-d5	39	10 - 110
Nitrobenzene-d5	77	35 - 114
2-Fluorobiphenyl	75	43 - 116
2,4,6-Tribromophenol	68	10 - 123
Terphenyl-d14	67	33 - 141

^{*} These limits are provided for advisory purposes.

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Approved by:		

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99

Associated Method Blank: \$1030-B2

Dilution Factor: 1

Concentration in: μ g/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5 5 5 5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4 Dichlorobenzene	ND	5 5 5 5 5 5 5 5 5 5 5
1, hlorobenzene	ND	5
2-Namiylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5.
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5 5 5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5 ·
2-Methylnaphthalene	ND .	5 5
Hexachlorocyclopentadiene	ND	5 .
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	· 5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2. 'nitrotoluene	ND	5
D. iphthalate	ND	5
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Reported by: TS	Approved by	

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte		alyte Sample Concentration	
4-Chlorophenyl-phenylether		ND	5
Fluorene		ND	5
4-Nitroaniline		ND	10
4,6-Dinitro-2-Methylphenol		ND	10
N-Nitrosodiphenylamine (1)		ND	5
4-Bromophenol-phenylether		ND	5
Hexachlorobenzene		ND	5
Pentachlorophenol		ND	10
Phenanthrene		ND	5
Anthracene		ND	. 5
Carbazole		ND	5
Di-n-butylphthalate		ND	· 5
Fluoranthene		ND	5
Pyrene		ND	5
Butylbenzylphthalate		ND	5
3.3'-Dichlorobenzidine		ND	5
Benzo(a)anthracene		ND	5
bis(2-Ethylhexyl)Phthalate		ND	5
Chrysene		ND	5
Di-n-Octyl Phthalate		ND	5
Benzo(b)fluoranthene		ND	5
Benzo(k)fluoranthene		ND	5
Benzo(a)pyrene		ND	5
Indeno(1,2,3-cd)pyrene		ND	5
Dibenzo(a,h)anthracene	,	ND	5 ·
Benzo(g,h,i)perylene	•	ND .	5
2,4,5-Trichlorophenol		ND	10

ND = Not detected

Approved by:

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Reported by: TS

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS **SW846 METHOD 8270C**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/02/99 Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Recovery(%)	QC Limits(%)*	
41	21 - 110	
29	10 - 110	
78	35 - 114	
71	43 - 116	
68	10 - 123	
57	33 - 141	
	41 29 78 71 68	

^{*} These limits are provided for advisory purposes.

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Reported by: TS	Approved by:	4/	
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Reported by:

Laboratory ID: 990922-02

Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5 5 5 5 5 5 5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5 5 5 5 5 5 5 5 5
Nitrobenzene	ND	5
Isophorone	ND	. 5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5 5
2-Methylnaphthalene	ND	
Hexachlorocyclopentadiene	ND	5 5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	. 5
2-Chioronaphuratene 2-Nitroaniline	ND ND	10
Dimethyl Phthalate	ND ND	5
A constitutions	ND	5
Acenaphthylene	ND ND	10
3-Nitroaniline		5
Acenaphthene	ND	
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5 5 26
Diethylphthalate	ND	20
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Target Analyte	lyte Sample Concentration	
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-P-2mophenol-phenylether	ND	5
I hlorobenzene	ND	5
Puchlorophenol	ND	10
Phenanthrene	ND .	5
Anthracene	ND	5
Carbazole	ND	5.
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	. 5
bis(2-Èthylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10
•		

ND = Not detected

Reported by: TS	Approved by:	<u> (e/<</u>	27

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL) SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99 Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Surrogate Compound	Recovery(%)	QC Limits(%)*	
2-Fluorophenol	47	21 - 110	
Phenol-d5	33	10 - 110	
Nitrobenzene-d5	79	35 - 114	
2-Fluorobiphenyl	76	43 - 116	
2,4,6-Tribromophenol	67	10 - 123	
Terphenyl-d14	62	33 - 141	

^{*} These limits are provided for advisory purposes.

Reported by: TS	Approved by:	// 28

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: \$1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Snika	Matrix Spike Latrix Spike Duplicate ecovery(%) Recovery(%)	DDD(Ø)	QC L	QC Limits(%)*	
	Recovery(%)		RPD(%)	RPD	Recovery	
l I	36	38	7	10	10 - 125	
bis(2-Chloroethyl)Ether	81	72	11	44	44 - 125	
2-Chlorophenol	67	66	0	41	41 - 125	
1,3-Dichlorobenzene	72	68	7	36	36 - 125	
1,4-Dichlorobenzene	74	61	18	30	30 - 125	
1,2-Dichlorobenzene	72	64	11	42	42 - 155	
2-Methylphenol	63	69	9	25	25 - 125	
2,2'-oxybis(1-Chloropropane)	92	82	12	36	36 - 166	
1-Methylphenol	64	68	6	33	33 - 125	
N-Nitroso-Di-n-Propylamine	88	81	8	- 37	37 - 125	
Hexachloroethane	76	67	12	25	25 - 153	
Nitrobenzene	84	74	12	46	46 - 133	
sophorone	81	78	4	26	26 - 175	
2-Nitrophenol	77	72	7	. 44	44 - 125	
2,4-Dimethylphenol	66	64	3	. 1	1 - 139	
ois(2-Chloroethoxy)Methane	80	75	6	49	49 - 125	
2,4-Dichlorophenol	75	71	4	46	46 - 125	
,2,4-Trichlorobenzene	73	65	12	44	44 - 142	
Naphthalene	73	67	9	50	50 - 125	
4-Chloroaniline	79	74	7	1	1 - 136	
Hexachlorobutadiene	74	66	11	25	25 - 125	
-Chloro-3-methylphenol	83	86	3	44	44 - 125	
2-Methylnaphthalene	77	71	8	41	41 - 125	
Hexachlorocyclopentadiene	72	60	18	18	18 - 125	
2,4,6-Trichlorophenol	79	80	2	.39	39 - 128	

Reported by: TS Approved by: 29

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Spike Compound	Marain Caller	Matrix Spike	DDD/#1	QC Limits(%)*	
	Matrix Spike Recovery(%)	Duplicate Recovery(%)	RPD(%)	RPD	Recovery
2-Chloronaphthalene	75	73	2	60	60 - 125
2-Nitroaniline	98	94	4	50	50 - 125
Dimethyl Phthalate	83	81	3	25	25 - 175
Acenaphthylene	77	75	3	47	47 - 124
3-Nitroaniline	87	87	0	29	29 - 94
Acenaphthene	74	75	2	49	49 - 125
2,4-Dinitrophenol	83	75	10	10	10 - 151
4-Nitrophenol	37	40	8	1 0	10 - 131
Dibenzofuran	73	71	2	52	52 - 125
2,4-Dinitrotoluene	86	89	3	39	39 - 139
2,6-Dinitrotoluene	93	91	2	51	51 - 125
Diethylphthalate	81	83	3	37	37 - 125
4-Chlorophenyl-phenylether	79	78	2	51	51 - 132
Fluorene	78	78	0	48	48 - 139
4-Nitroaniline	100	90	10	40	40 - 143
4,6-Dinitro-2-Methylphenol	83	79	5	26	26 - 134
N-Nitrosodiphenylamine (1)	83	82	2	27	27 - 125
4-Bromophenol-phenylether	79	79	1	53	53 - 127
Hexachlorobenzene	78	77	1	46	46 - 133
Pentachlorophenol .	50	20	84	28	28 - 136
Phenanthrene	77	79	3	54	54 - 125
Anthracene	78	78	1	45	45 - 165
Carbazole	85	81	5	25	25 - 125
Di-n-butylphthalate	82	82	0	34	34 - 126
Fluoranthene	81	79	2	47	47 - 125

Reported by: TS Approved by: 9/6

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Spike Compound	Mania Cailes	Matrix Spike Matrix Spike Duplicate Recovery(%) Recovery(%)	D DD/@/	QC Limits(%)*	
			RPD(%)	RPD	Recovery
Pyi	83	85	3	47	47 - 136
Butylbenzylphthalate	88	88	1	26	26 - 125
3,3'-Dichlorobenzidine	83	82	2	1	1 - 175
Benzo(a)anthracene	84	84	0 .	51	51 - 133
bis(2-Ethylhexyl)Phthalate	85	88	4	· 33	33 - 129
Chrysene	85	85	0	55	55 - 133
Di-n-Octyl Phthalate	120	117	3	38	38 - 127
Benzo(b)fluoranthene	97	102	6	37	37 - 125
Benzo(k)fluoranthene	109	97	12	37	37 - 125
Benzo(a)pyrene	92	88	5	41	41 - 125
Indeno(1,2,3-cd)pyrene	55	62	13	27	27 - 160
Dibenzo(a,h)anthracene	60	71	15	50	50 - 125
Benzo(g,h,i)perylene	46	54	16	34	34 - 149
2,4,5-Trichlorophenol	80	81	2	25	25 - 175

^{*} These limits are provided for advisory purposes.

Reported by:	TS	Approved by:	a/\langle	31

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY SEMIVOLATILE ORGANICS ANALYSIS SW846 METHOD 8270C

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: $\mu g/L$ (ppb)

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*	
2-Fluorophenol	48	55	21 - 110	
Phenol-d5	34	37	10 ~ 110	
Nitrobenzene-d5	18	71	35 - 114	
2-Fluorobiphenyl	73	71	43 - 116	
2,4,6-Tribromophenol	77	78	10 - 123	
Terphenyl-d14	76	7 7	33 - 141	

^{*} These limits are provided for advisory purposes.

Reported by:	TS	Approved by:	a/(32
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"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY SEMIVOLATILE BLANK SPIKE SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike 1D: S1930-LCS2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: $\mu g/L$ (ppb)

Spike Compound	Spike Added	Blank Spike Recovery(%)	QC Limits(%)*	
Phenol	50.0	37	10 - 125	
bir hloroethyl)Ether	50.0	64	44 - 125	
2- rophenol	50.0	61	41 - 125	
1,3-Dichlorobenzene	50.0	58	36 - 125	
1,4-Dichlorobenzene	50.0 .	55	30 - 125	
1,2-Dichlorobenzene	50.0	59	42 - 155	
?-Methylphenol	5 0.0	64	25 - 125	
2,2'-oxybis(1-Chloropropane)	50.0	71	36 - 166	
1-Methylphenol	50.0	62	33 - 125	
N-Nitroso-Di-n-Propylamine	50.0	72	37 - 125	
Hexachloroethane	50.0	56	25 - 153	
Nitrobenzene	50.0	67	46 - 133	
sophorone	50.0	71	26 - 175	
2-Nitrophenol	5 0.0	68	44 - 125	
2,4-Dimethylphenol	50.0	57	1 - 139	
ois(2-Chloroethoxy)Methane	50.0	69	49 - 125	
2,4-Dichlorophenol	50.0	64	46 - 125	
1,2,4-Trichlorobenzene	5 0.0	59	44 - 142	
Naphthalene	50.0	61	50 - 125	
I-Chloroaniline	5 0.0	74	1 - 136	
Hexachlorobutadiene	50.0	61	25 - 125	
1-Chloro-3-methylphenol	50.0	80	44 - 125	
2-Methylnaphthalene	50.0	66	41 - 125	
Hexachlorocyclopentadiene	50.0	52	18 - 125	
2,4,6-Trichlorophenol	50.0	73	39 - 128	
2-Chloronaphthalene	50.0	65	60 - 125	
2-Nitroaniline	50 .0	88	50 - 125	
Dimethyl Phthalate	50.0	75	25 - 175	
Acenaphthylene	50.0	67	47 - 125	
3-Nitroaniline	50.0	90	29 - 94	
Acenaphthene	50.0	67	49 - 125	
2,4 Pinitrophenol	50.0	64	10 - 151	
- phenol	50.0	39	10 - 131	

Reported by: TS	Approved by:	9/(33
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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY SEMIVOLATILE BLANK SPIKE SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: S1030-LCS2

* These limits are provided for advisory purposes.

Date Sample Analyzed: 11/02/99

Matrix: Aqueous

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: $\mu g/L$ (ppb)

		Blank Spike Recovery(%)	QC Limits(%)*		
Dibenzofuran	50.0	66	52 - 125		
2,4-Dinitrotoluene	50.0	79	39 - 139		
2,6-Dinitrotoluene	50.0	80	51 - 125		
Diethylphthalate	50.0	76	37 - 125		
4-Chlorophenyl-phenylether	50.0	72	51 - 132		
Fluorene	50.0	72	48 - 139		
1-Nitroaniline	50.0	95	40 - 143		
1,6-Dinitro-2-Methylphenol	50.0	68	26 - 134		
N-Nitrosodiphenylamine (1)	50.0	75	27 - 125		
4-Bromophenol-phenylether	50.0	76	53 - 127		
Hexachlorobenzene	50.0	73	46 - 133		
Pentachlorophenol	50.0	27	28 - 136		
Phenanthrene	50.0	72	54 - 125		
Anthracene	50.0	74	45 - 165		
Carbazole	50.0	81	25 - 125		
Di-n-butylphthalate	50.0	78	34 - 126		
Fluoranthene	50.0	76	47 - 125		
Pyrene	50.0	76	47 - 136		
Butylbenzylphthalate	50.0	80	26 - 125		
3,3'-Dichlorobenzidine	50.0	77	1 - 175		
Benzo(a)anthracene	50.0	81	51 - 133		
ois(2-Ethylhexyl)Phthalate	50.0	81	33 - 129		
Chrysene	50.0	79	55 - 133		
Di-n-Octyl Phthalate	50.0	109	38 - 127		
Benzo(b)fluoranthene	50.0	89	37 - 125		
Benzo(k)fluoranthene	50.0	100	37 - 125		
Benzo(a)pyrene	50.0	83	41 - 125		
ndeno(1,2,3-cd)pyrene	50.0	52	27 - 160		
Dibenzo(a,h)anthracene	50.0	59	50 - 125		
Benzo(g,h,i)perylene	50.0	44	34 - 149		
2,4,5-Trichlorophenol	50.0	74	25 - 175		

Reported by: TS		Approved by:	a/<	34
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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY SEMIVOLATILE BLANK SPIKE SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: S1030-LCS2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: $\mu g/L$ (ppb)

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
2 rophenol	51	21 - 110
Pi. JI-d5	34	10 - 110
Nitrobenzene-d5	66	35 - 114
2-Fluorobiphenyl	63	43 - 116
2,4,6-Tribromophenol	75	10 - 123
Terphenyl-d14	70	33 - 141

^{*} These limits are provided for advisory purposes.

		c/c	35
Reported by:	Approved by:	$\mathcal{G}/$	

PESTICIDE ANALYSES

01021501

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00094

% Moisture: _____ decanted: (Y/N) ___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF. Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
CAS NO. COMPOUND (ug/L or ug/kg) UG/L Q

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

01021S01MS

Q

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-02MS

Sample wt/vol: 1000 (q/mL) ML Lab File ID: A4F00095

% Moisture: _____ decanted: (Y/N) Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection_Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

 319-84-6------alpha-BHC
 0.074

 319-85-7-----beta-BHC
 0.079

 319-86-8-----delta-BHC
 0.081

 58-89-9-----gamma-BHC (Lindane)
 0.077

 76-44-8------Heptachlor
 0.064

 309-00-2------Aldrin
 0.073

1024-57-3-----Heptachlor epoxide 0.074 P 959-98-8-----Endosulfan I 0.028 0.077 60-57-1------Dieldrin 72-55-9-----4,4'-DDE 0.081 72-20-8-----Endrin 0.084 33213-65-9-----Endosulfan II 0.042 72-54-8-----4,4'-DDD 0.079 1031-07-8-----Endosulfan sulfate 0.075 P 50-29-3-----4,4'-DDT 0.074 0.096 72-43-5-----Methoxychlor

 53494-70-5-----Endrin ketone
 0.082

 7421-36-3-----Endrin aldehyde
 0.080

 5103-71-9------alpha-Chlordane
 0.074

 5103-74-2-----gamma-Chlordane
 0.076

 8001-35-2-----Toxaphene
 1.0

EPA SAMPLE NO.

01021S01MSD

Tab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.:

SDG No.: 022S01

. Matrix: (soil/water) WATER

Lab Sample ID: 990922-02MSD

Sample wt/vol:

1000 (g/mL) ML

Lab File ID: A4F00108

% Moisture: decanted: (Y/N)

Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF.

Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL)

Date Analyzed: 11/04/99

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 14.0

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

Q

319-84-6alpha-BHC	0.085	
319-85-7beta-BHC	0.085	
319-86-8delta-BHC	0.090	
58-89-9gamma-BHC (Lindane)	0.089	
76-44-8Heptachlor	0.074	
309-00-2Aldrin	0.086	
1024-57-3Heptachlor epoxide	0.086	D
959-98-8Endosulfan I		
60-57-1Dieldrin	0.087	-
72-55-94,4'-DDE	- 0.087 0.087	
	0.093	
72-20-8Endrin		
33213-65-9Endosulfan II	0.047	
72-54-84,4'-DDD	0.035	
1031-07-8Endosulfan sulfate	0.085	
50-29-34,4'-DDT_	0.081	P
72-43-5Methoxychlor	0.10	
53494-70-5Endrin ketone	0.090	
7421-36-3Endrin aldehyde	0.091	
5103-71-9alpha-Chlordane	0.086	P
5103-74-2qamma-Chlordane	0.087	_
8001-35-2Toxaphene	1.0	TT
10ve5ucue		
		l

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Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT085 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00093

% Moisture: ____ decanted: (Y/N) ___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF. Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection_Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

319-84-6alpha-BHC	0.010	U .
319-85-7beta-BHC	0.010	1
319-86-8delta-BHC	0.010	
58-89-9qamma-BHC (Lindane)	0.010	
76-44-8Heptachlor	0.010	
309-00-2Aldrin	0.010	1
1024-57-3Heptachlor epoxide	0.010	1
959-98-8Endosulfan I	0.010	
60-57-1Dieldrin	0.020	ŧ
72-55-94,4'-DDE	0.020	•
72-20-8Endrin	0.020	1
	- i	-
33213-65-9Endosulfan II	0.020	, -
72-54-84,4'-DDD	0.020	3
1031-07-8Endosulfan sulfate	0.020	1
50-29-34,4'-DDT_	0.020	i .
72-43-5Methoxychlor	0.10	U
53494-70-5Endrin ketone	0.020	U
7421-36-3Endrin aldehyde	0.020	U
5103-71-9alpha-Chlordane	0.010	ט
5103-74-2gamma-Chlordane	0.010	1 -
8001-35-2Toxaphene	1.0	Ū
sassalassas	-	
		I

PLCS01

Q

0.080 P

0.082 1.0 U

Lab Name: CEIMIC Contract: TETRA TECH

ab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: P1031-LCS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00092

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF. Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection_Volume: 1.0(uL) Dilution Factor: 1.0

CAS NO. COMPOUND

5103-71-9----alpha-Chlordane

8001-35-2----Toxaphene

5103-74-2----gamma-Chlordane

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

0.084 319-84-6----alpha-BHC 319-85-7-----beta-BHC 0.084 319-86-8-----delta-BHC 0.086 58-89-9-----gamma-BHC (Lindane) 0.085 76-44-8-----Heptachlor 0.074 0.082 309-00-2-----Aldrin 1024-57-3-----Heptachlor epoxide 0.083 959-98-8-----Endosulfan I 0.031 P 60-57-1-----Dieldrin 0.084 72-55-9-----4,4'-DDE 0.086 72-20-8-----Endrin 0.090 33213-65-9-----Endosulfan II 0.045 72-54-8-----4,4'-DDD 0.085 1031-07-8-----Endosulfan sulfate 0.081 P 50-29-3-----4,4'-DDT 0.080 P 72-43-5-----Methoxychlor 0.10 53494-70-5-----Endrin ketone 0.092 0.090 P 7421-36-3-----Endrin aldehyde

PBLK01

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: P1031-B1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00090

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF. Date Extracted:10/31/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L 0 319-84-6-----alpha-BHC 0.010 U 319-85-7-----beta-BHC 0.010 U 319-86-8-----delta-BHC 0.010 U 58-89-9-----gamma-BHC (Lindane) 0.010 U 0.010 U 76-44-8------Heptachlor 309-00-2-----Aldrin 0.010 U 1024-57-3-----Heptachlor epoxide 0.010 U 959-98-8-----Endosulfan I 0.010 U 60-57-1-----Dieldrin 0.020 U 72-55-9-----4,4'-DDE 0.020 U 72-20-8-----Endrin 0.020 U 33213-65-9-----Endosulfan II 0.020 U 0.020 U 72-54-8-----4,4'-DDD 1031-07-8-----Endosulfan sulfate 0.020 U 50-29-3-----4,4'-DDT 0.020 U 72-43-5-----Methoxychlor 0.10 U 53494-70-5-----Endrin ketone 0.020 U 7421-36-3-----Endrin aldehyde 0.020 U 5103-71-9-----alpha-Chlordane 0.010 U 5103-74-2-----gamma-Chlordane 8001-35-2-----Toxaphene 0.010 U 1.0 U

2E WATER PESTICIDE SURROGATE RECOVERY

Tab Name: CEIMIC

Contract: TETRA TECH

_db Code: CEIMIC Case No.: CTO86 SAS No.:

SDG No.: 022S01

-GC Column(1): DB5 ID: 0.53 (mm) GC Column(2): DB1701 ID: 0.53 (mm)

EPA SAMPLE NO.	TCX 1	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT
PBLK01	90	= ==== 90	==== = 80	===== 80	=====		0
01022501	65	70	22*	25*			0 2 0
01021S01MS 01021S01MSD	65 80	65 75	55 60	65 70			0
	SAMPLE NO. ====================================	SAMPLE NO. %REC # PBLK01 90 80 01022S01 65 01021S01 75 01021S01MS 65	SAMPLE NO. %REC # %REC # PBLK01 90 90 90	SAMPLE NO. %REC # %REC # %REC # %	SAMPLE NO. %REC # %RE	SAMPLE NO.	SAMPLE NO. %REC # %REC # %REC # %REC # (1) (2) PBLK01 90 90 80 80 PLCS01 80 75 70 75

ADVISORY QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (45-125) S2 (DCB) = Decachlorobiphenyl (34-133)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 3 WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix Spike - Sample No.: PLCS01

	SPIKE	SAMPLE	LCS	LCS	QC.
	ADDED	CONCENTRATION	CONCENTRATION	ક	LIMITS
COMPOUND	(ug/L)	(ug/L)	(ug/L)	REC #	REC.
	=======	=======================================		=====	=====
alpha-BHC	0.10		0.084	84	23-130
beta-BHC	0.10		0.084	84	41-111
delta-BHC	0.10		0.086	86	32-126
gamma-BHC (Lindane)	0.10		0.085	85	34-119
Heptachlor	0.10		0.074	74	28-113
Aldrin	0.10		0.082	82	20-122
Heptachlor epoxide	0.10		0.083	83	39-119
Endosulfan I	0.10		0.031	31	22-111
Dieldrin	0.10		0.084	84	39-110
4,4'-DDE	0.10		0.086	86	36-115
Endrin	· 0.10		0.090	90	47-128
Endosulfan II	0.10		0.045	45	27-122
4,4'-DDD	0.10		0.085	85	33-116
Endosulfan sulfate	0.10		0.081	81	28-132
4,4'-DDT	0.10		0.080	80	20-150
Methoxychlor	0.10		0.10	100	50-134
Endrin ketone	0.10		0.092	92	47-113
Endrin aldehyde	0.10		0.090	90	43-136
alpha-Chlordane	0.10		0.080	80	41-125
gamma-Chlordane	0.10		0.082	82	41-125
				İ	

Column to be used to flag recovery and RPD values with an asterisk

RPD: 0 out of 0 outside limits .

Spike Recovery: 0 out of 20 outside limits

COMMENTS:	
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FORMIII-MS/MSD

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

> N 2: CEIMIC CORP Contract: TETRA TECH

Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

ent Sample ID.: 01021S01MS/MSD Sample ID.: 990922-02MS/MSD

rix: Aqueous

	SPIKE	MS	MSD		
	ADDED	RECOVERY	RECOVERY	ક	QC-LIMITS
COMPOUND	(ug/L)	%	ુ	RPD	<u>%</u>
=======================================	=======		========	=====	======
:lpha-BHC	0.10	74	85	14	23-130
eta-BHC	0.10	79	85	7	41-111
ielta-BHC	0.10	81	90	11	32-126
amma-BHC (Lindane)	0.10	77	89	14	34-119
[eptachlor	0.10	54	74	14	28-113
ldrin	0.10	73	85	16	20-122
ieptachlor Epoxide	0.10	74	86	15	39-119
indosulfan I	0.10	28*	32	13	22-111
ieldrin	0.10	77	87	12	39-110
,4'-DDE	0.10	81	87	7	36-115
Indrin	0.10	84	93	10	47-128
hdosulfan II	0.10	42	47	11	27-122
,4'-DDD	0.10	79	85	7	33-116
ind ilfan Sulface	0.10	75	85	13	28-132
, 4 DT	0.10	74	81	9	20-150
lethoxychlor	0.10	96	100	4	50-134
indrin Ketone	0.10	. 82	90	9	47-118
indrin Aldehyde	0.10	80	91	13	43-136
loha-Chlordane	0.10	74	86	15	41-125
amma-Chlordane	0.10	76	87	13	41~125
	,				

IMENTS:

FORMIII-MS/MSD

PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Associated Method Blank: P1030-B3

Final Extract Volume (mL):2.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
∍r-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	25	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	1/1	
	Form I PCR		47

POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Associated Method Blank: P1030-B3

Final Extract Volume (mL):2.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Arocior-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound		Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	>	55	56 - 111
Decachlorobiphenyl		40	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:	M	
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METHOD BLANK POLYCHLORINATED BIPHENYLS (PCB)

by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1030-B3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
or-1221	ND	0.400
Aroclor-1232	, ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by:	Approved by:	n	
	E I DOD	TW .	49

Form I PCB

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LABORATORY CONTROL SUMMARY POLYCHLORINATED BIPHENYLS (PCB)

by SW846 Method 8080A

Cl	ient:	Tetra	Tech	NUS
~.	iciii.	1 (114	1 0011	1100

Blank Spike ID: P1030-LCS3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed:

11/10/99

Date Sample Prepared: 10/30/99

Associated Method Blank: P1030-B3

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	1.0	0.65	65	30 - 150
Aroclor-1260	1.0	0.70	70	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	70	34 - 129

^{*} These limits are provided for advisory purposes.

Reported by:	Approved by:
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MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY POLYCHLORINATED BIPHENYLS (PCB) by SW846 Method 8080A

Laboratory ID: 990922-02MS

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01		Date Sample Extracted: 10/30/99				
Date Sampled: 10/27/99			Date Sample Analyzed: 11/10/99			
Date Sample Received: 10/28/99			Associated Method Blank: P1030-			
Matrix: Aqueous	Matrix: Aqueous			tract Volun	ne (mL):2.0	
			Dilution	Factor: 1		
			Concent	ration in: uį	g/L (քր b)	
Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration		Matrix Spike Recovery(%)	
Aroclor-1016 Aroclor-1260	2.00 2.00	ND ND	1.4 1.6		70 80	
Target Analyte	Matrix Spike Duplicate	Matrix Spike Duplicate	RPD(%)	QC Limits(%)*		
	Concentration	Recovery(%)		RPD	Recovery	
Aroclor-1016 Aroclor-1260	1.2 1.2	60 60	18.2 26.1	20 20	30 - 150 47 - 127	
ND = Not detected						
	Surr	ogate Spike Recover	y			
Surrogate Compound	Matrix Spil Recovery(%		Matrix Spike Duplicate Recovery(%)	(QC Limits(%)*	
Tetrachloro-m-xylene Decachlorobiphenyl	75 60		75 50		56 - 111 34 - 129	
* These limits are provided for advisory	y purposes.	***************************************				
				_		
Reported by:		Аррг	oved by:	18		
		Form IIIR PCR				

METAL ANALYSES

Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: PBW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	ND ·	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	ND	0.010
Beryllium	1101	: ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	ND	0.50
Cium	1101	ND	0.020
Covall	1101	ND	0.020
Соррег	1101	ND	0.020
Iron	1101	ND	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	ND	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	ND	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by:

Approved by: World Yalor

53

Corporation
"Analytical Chemistry for Environmental Management"

TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-01

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	10.6	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.049	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	0.79	0.50
Chromium	1101	0.021	0.020
Cobalt	1101	ND	0.020
Соррег	1101	ND	0.020
Iron	1101	10.1	0.10
Lead	1101	0.010	0.005
Magnesium	1101	0.60	0.50
Manganese	1101	0.087	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	6.08	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

54 Reported by:

Metals Page 2

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Analysis Completed: 11/09/99

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	0.63	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.011	0.010
Beryllium	1101	ND	0.010
Cr m	1101	ND	0.010
Caicin	1101	ND	0.50
Chromium	1101	ND	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	12.8	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	0.131	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	3.60	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by:

55

Corporation

"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

		n d	0.9.1		Recovery(%))	
Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Predigest Spike	QC Limits	Post Digest Spike	•
Aluminum	0.632	2.00	2.32	84	75 - 125	NR	
Aluminum	0.632	2.00	2,37	87	75 - 125	NR	
Antimony	ND	0.500	0.477	95	75 - 125	NR	
Antimony	ND	0.500	0.484	97	75 - 125	NR	
Arsenic	ND	0.0400	0.0358	89	75 - 125	NR	
Arsenic	ND	0.0400	0.0392	98	75 - 125	NR	
Barium	0.0110	2.00	1.77	88	75 - 125	NR	
Barium	0.0110	2.00	1.78	88	75 - 125	NR	
Beryllium	ND	0.0500	0.0450	90	75 - 125	NR	
Beryllium	ND	0.0500	0.0457	91	75 - 125	NR	
Cadmium	ND	0.0500	0.0446	89	75 - 125	NR	
Cadmium	ND	0.0500	0.0451	90	75 - 125	NR	
Calcium	ND	2.00	2.11	106	75 - 125	NR	
Calcium	ND	2.00	2.14	107	75 - 125	NR	
Chromium	ND	0.200	0.180	90	75 - 125	NR	
Chromium	ND	0.200	0.183	91	75 - 125	NR	
Cobalt	ND	0.500	0.443	89	75 - 125	NR	
Cobalt	ND	0.500	0.446	89	75 - 125	NR	
Copper	ND	0.250	0.221	88	75 - 125	NR	
Соррег	ND	0.250	0,220	88	75 - 125	NR	
ron	12.8	1.00	13.1	30	**	NR	
ron	12.8	1.00	14.2	140	**	NR	
Lead	ND	0.0200	0.0190	95	75 - 125	NR	
Lead	ND →	0.0200	0.0197	98	75 - 125	NR	
Magnesium	ND	2.00	2.08	86	75 - 125	NR	
Magnesium	ND	2.00	2.13	88	75 - 125	NR	
Manganese	0.131	0.500	0.566	87	75 - 125	NR	
Manganese	0.131	0.500	0.579	90	75 - 125	NR	
Mercury	ND	0.00100	0.00101	101	75 - 125	NR	
Mercury	ND	0.00100	0.000970	97	75 - 125	NR	
Nickel	ND	0.500	0.440	88	75 - 125	NR	
Nickel	ND	0.500	0.440	88	75 - 125	NR	
Potassium	ND	2.00	1.72	86	Λ 75 ₆ 125	/ NR	
Reported by:	Janje	11cmc		pproved by:	Bull Xo	Torolli.	5

Metals Page 4

10 Dean Knauss Drive Narragansett, RI 02882 · Tel: (401) 782-8900 · Fax: (401) 782-8905

Corporation

"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

		Dandinas	C-Dood	Recovery(%)		
Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Predigest Spike	QC Limits	Post Digest Spike
Potassium	ND	2.00	1.65	83	75 - 125	NR
Sclenium	ND	0.0100	∂.ડ૦૪/ ND-	89	75 - 125	NR
Selenium	ND	0.0100	0.0105	105	75 - 125	NR
Sil	ND	0.0500	0.0493	9 9	75 - 12 5	NR
Si	ND	0.0500	0.0490	98	75 - 125	NR
Sodium	3.60	2.00	5.21	81	75 - 125	NR
Sodium	3.60	2.00	5.51	95	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 12 5	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Zinc	ND	0.500	0.439	88	75 - 125	NR
Zinc	ND	0.500	0.442	88	75 - 125	NR

ND = Not Detected

NR = Not Required

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Reported by:	Approved by:	Dorold Fortrulli	

^{**} Sample result exceeds four times the spike added value. There is no control limit in this case.

Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY TOTAL METALS SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Ceimic Project: 990922

Laboratory Control Spike ID: LCSW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1101	10.0	8.88	88.8	85 - 111
Antimony	1101	0.500	0.484	96.8	80 - 116
Arsenic	1101	0.200	0.194	97.0	83 - 119
Barium	1101	10.0	8.96	89.6	86 - 111
Beryllium	1101	0.250	0.227	90.8	84 - 114
Cadmium	1101	0.100	0.0910	91.0	78 - 10 9
Calcium	1101	25.0	22.4	89.6	84 - 110
Chromium	1101	1.00	0.912	91.2	84 - 116
Cobalt	1101	2.50	2.24	89.6	82 - 115
Copper	1101	1.25	1.10	88.0	87 - 109
lron .	1101	5.00	4.49	89.8	85 - 111
Lead	1101	0.200	0.187	93.5	81 - 112
Magnesium	1101	25.0	22.2	88.8	86 - 112
Manganese	1101	2.50	2.25	90.0	79 - 120
Mercury	1101	0.00197	0.00196	101.5	80 - 120
Nickel	1101	2.50	2.22	88.8	83 - 112
Potassium	1101	25.0	22.2	88.8	83 - 110
Selenium	1101	0.200	0.206	103.0	83 - 126
Silver	1101	1.25	1.20	96.0	73 - 124
Sodium	1101	25.0	22.3	89.2	86 - 110
Thallium	1101	0.200	0.185	92.5	81 - 117
Vanadium	1101	2.50	2.35	94.0	79 - 121
Zinc	1101	2.50	2.21	88.4	86 - 107

Reported by: North Tatouth 58

Metals Page 6

INORGANIC ANALYTES

Corporation
"Analytical Chemistry for Environmental Management"

QUALITY CONTROL METHOD BLANK

Client: Tetra Tech NUS

Blank ID: PBW

Ceimic Project: 990922

Target Analyte	Result	Units	Method Reporting Limit	Date Date Prep'd Analyzed
Total Cyanide	ND	mg/L	0.01	11/01/98 11/01/98

ND = Not Detected

CEIMIC Corporation "Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Tetra Tech NUS Client Sample ID: BRO-102-2S-01 Date Sampled: 10/27/99 Date Sample Received: 10/28/99 Matrix: Aqueous			Laboratory ID: 990922-01			
Target Analyte	Result	Units	Method Reporting Limit	Date Date Prep'd Analyzed		
T' Cyanide	ND	mg/L	0.01	11/01/98 11/01/98		
Reported by:	D. Maynon		Approved by:	\mathbb{X}		

Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02

Date Sample Received: 10/28/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Total Cyanide	ND	mg/L	10.0	11/01/98	11/01/98

ND = Not Detected

Reported by:	Soffen D	Maymon	Approved by:	i X	
	O(MN)				

Corporation
"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY **INORGANIC ANALYTES**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Concentration in: mg/L (ppm)

Matrix: Aqueous

			Spiked	Recovery(%)		
Target Analyte	Sample Result	Spike Added	Sample Result	Predigest Spike	QC Limits	
Total Cyanide	ND	0.050	0.051	102	75-125	
Total Cyanide	ND	0.050	0.040	80	75-125	

ND = Not Detected

Reported by:	Jelha D.	Maymon	Approved by:	X
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QUALITY CONTROL

LABORATORY CONTROL SAMPLE SUMMARY

	etra To		

_aboratory Control Spike ID: QC

Ceimic Project: 990922

Concentration in: mg/L (ppm)

Target Analyte	Date Prep'd	Date Analyzed	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Total Cyanide	11/01/9	98 11/01/98	0.080	0.070	88.0	80-120

Approved by: